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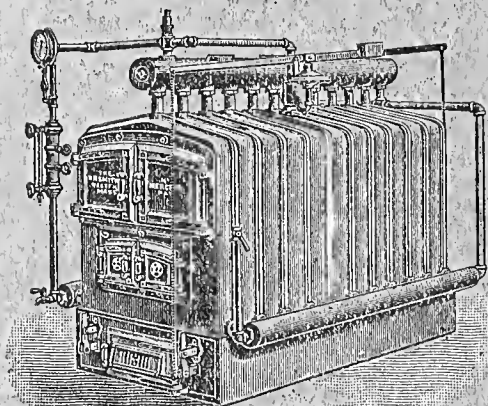
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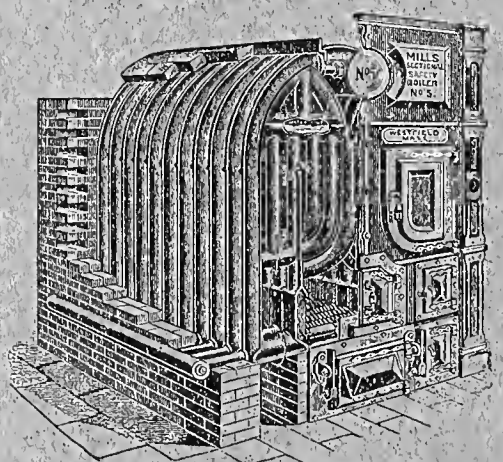
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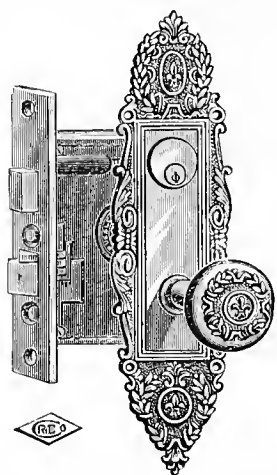
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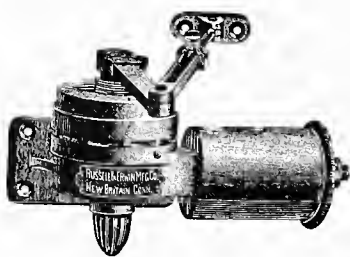
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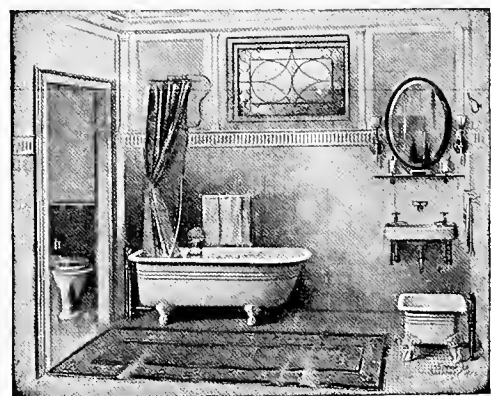
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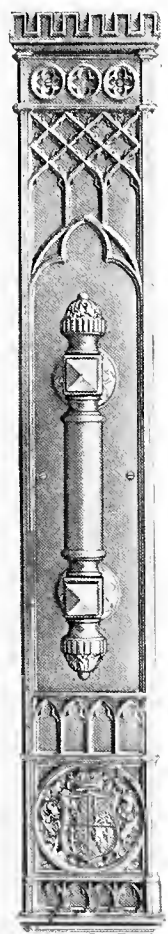
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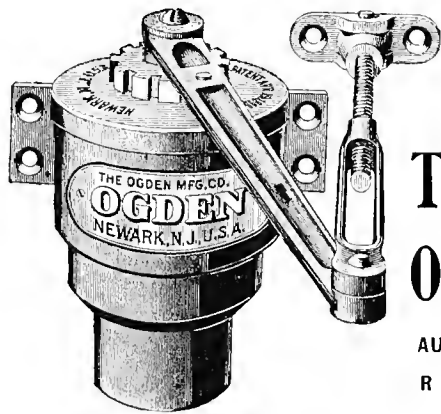
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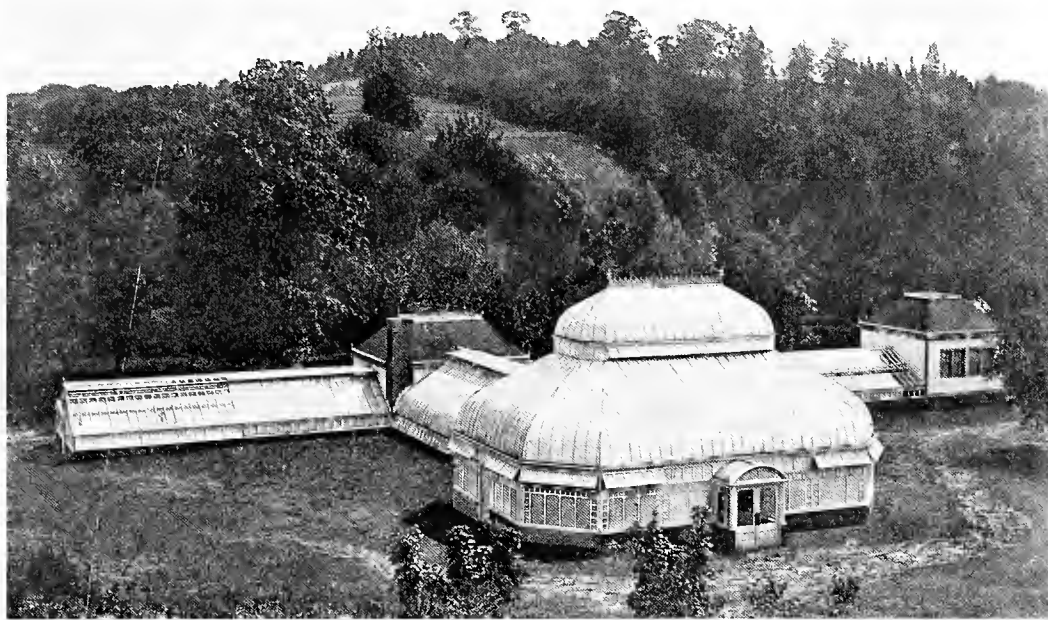
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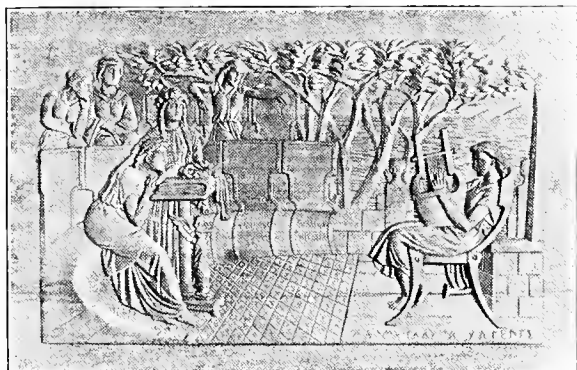
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Contents for January

	PAGE
BELLEFONTAINE (<i>Part I</i>), AT LENOX, MASS., Designed by Carrère & Hastings, Architects. <i>Illustrated,</i>	1
THE RULE OF THREE. By CLAUDE BRAGDON. <i>Illustrated by the Author,</i>	10
BYWAYS OF ENGLAND. <i>Illustrations,</i>	15
TYROLESE ARCHITECTURE (<i>Part II, Feudal</i>), By HERBERT C. WISE. <i>Illustrated,</i>	17
VIEWS OF FRANCE. <i>Illustrations,</i>	30
THE MISSION BUILDING, AT THE PAN-AMERICAN EXPOSITION, Designed by George Cary, Architect. THE PHOTOGRAPHIC COMPETITION. <i>Illustrated,</i>	31
A RESIDENCE, MADISON AVENUE AND 49TH STREET, CHICAGO, ILLINOIS, Designed by Handy & Cady, Architects. <i>Illustrations,</i>	35
EDITORIAL.	38

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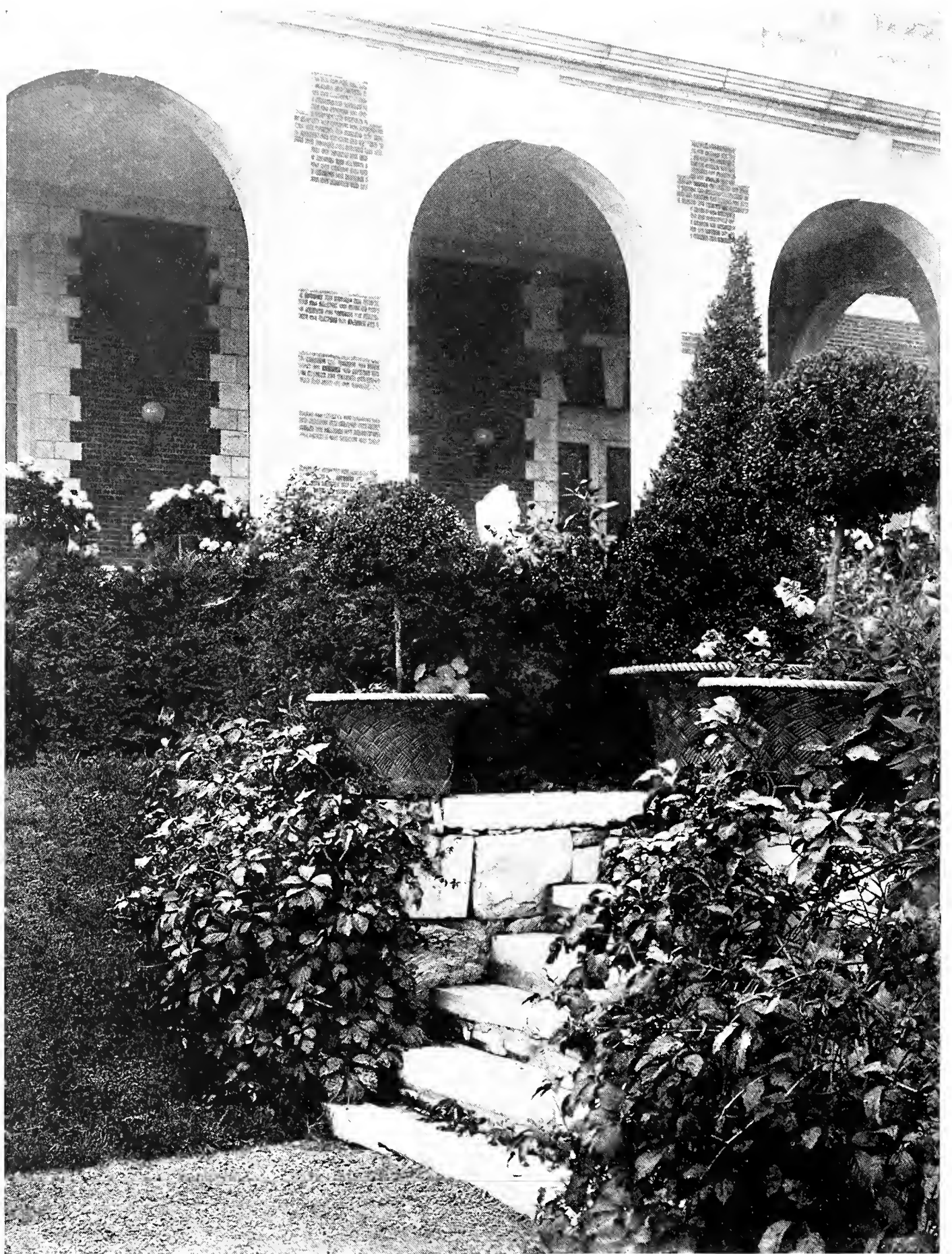


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STEPS TO THE EAST FLOWER GARDEN

BELLEFONTAINE

House & Garden

Vol. II

JANUARY, 1902

No. I

BELLEFONTAINE

AT LENOX, MASSACHUSETTS.

Designed by Carrère & Hastings, Architects.

I.

UPON the hills which surround the old village of Lenox are modern homes of a most extensive type. Beyond the elm shaded common, along excellent roads fairly ringing under the foot, one finds the country-side in possession of city folk bearing well-known names of Manhattan. These new places differ from the old homes of the neighborhood as new needs of domestic architecture have parted from the New England ideal of a rectangular dwelling of wood with perhaps a pediment and pilasters. The severe simplicity of old landmarks has little influence upon the new, and in picturesque massing and coloring the recent buildings surpass each other toward the goal of variety. The tranquillity of a New England village has given way to modern splendor. During the last century Lenox was a centre of life sufficient to itself and

not the summer suburb of a great city. It was then that a circle of literary people made its home here and impressed with dignity and refinement the little focus of Berkshire activity. Hawthorne wrote his "House of the Seven

Gables" here and Lenox history bears the names of Frederika Bremer and Mrs. Kemble.

Many of the new houses are placed close to the road where spacious entrance drives swing through their porte-cochères, suiting the formality of first approach. But the other sides of the houses, where living rooms are removed from public view, have always a delightful outlook over descending hill-sides to streams and to distant woods. It is these views of a country lying well between the extreme of



STEPS TO THE TERRACE

dull flatness and abrupt severity which are the attraction of a Berkshire home, which welcome with quiet refreshment those who

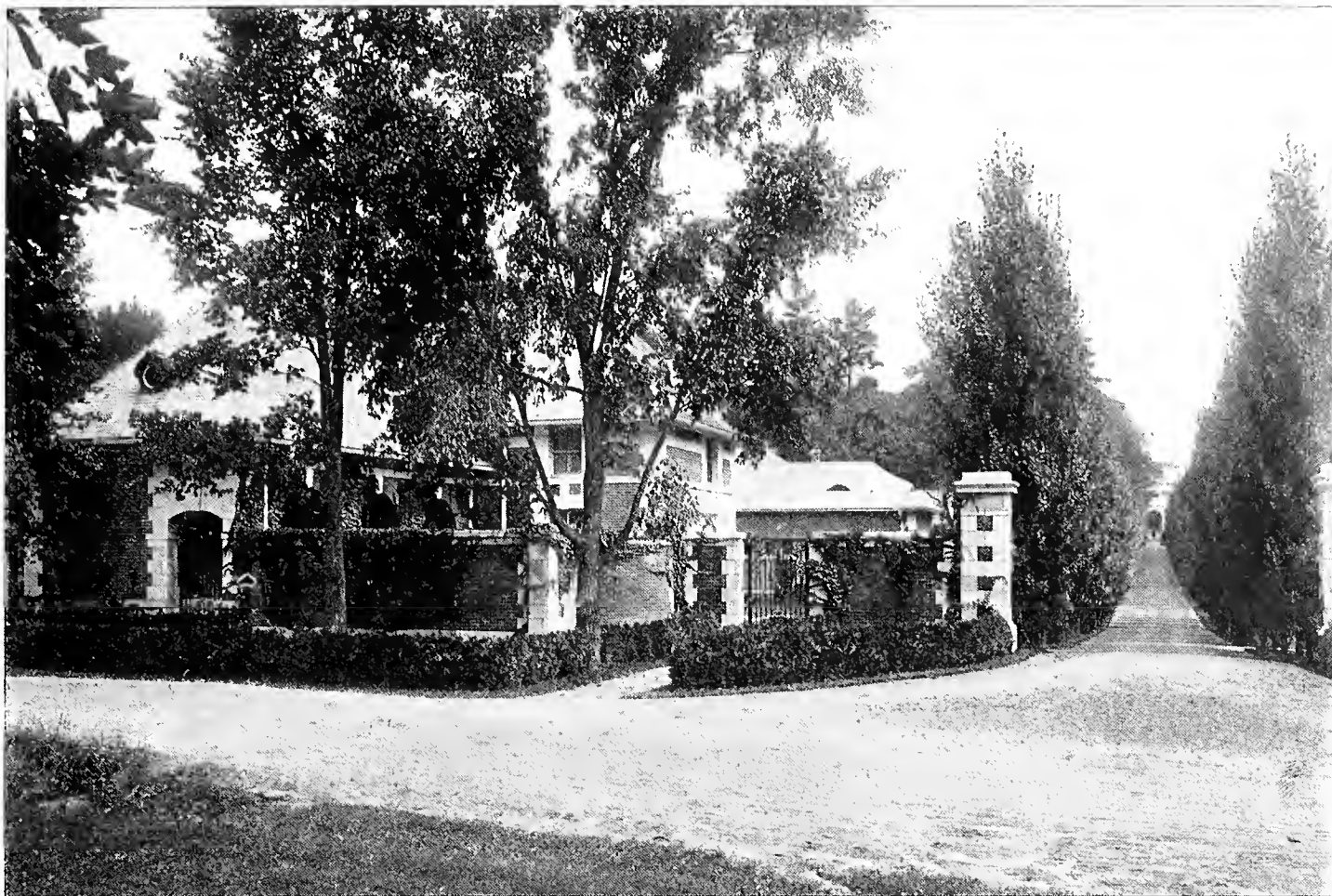


THE MAIN PORTICO

BELLEFONTAINE

return in September or October from the sea-beaten coasts at Bar Harbor and Newport. Far from the highways, also, distant

heights of ground commanding lower rises bear large domestic establishments. Stables, barns and green-houses widely separated



THE ENTRANCE AND LODGE

BELLEFONTAINE

reveal the great size of the properties. Acres of closely clipped lawn skirted by hemlock hedges and asphalt walks extend far out from the village and obtrude themselves upon a rural landscape.

With too much eagerness perhaps have we set out country homes near the skylines of our lands. The pleasure we have in a wide prospect tempts us to extend the view as far around the circle as possible. The result is frequently a restless and needless interruption to the natural scenery. Where this has not been done and where architecture instead of



THE END OF THE AVENUE

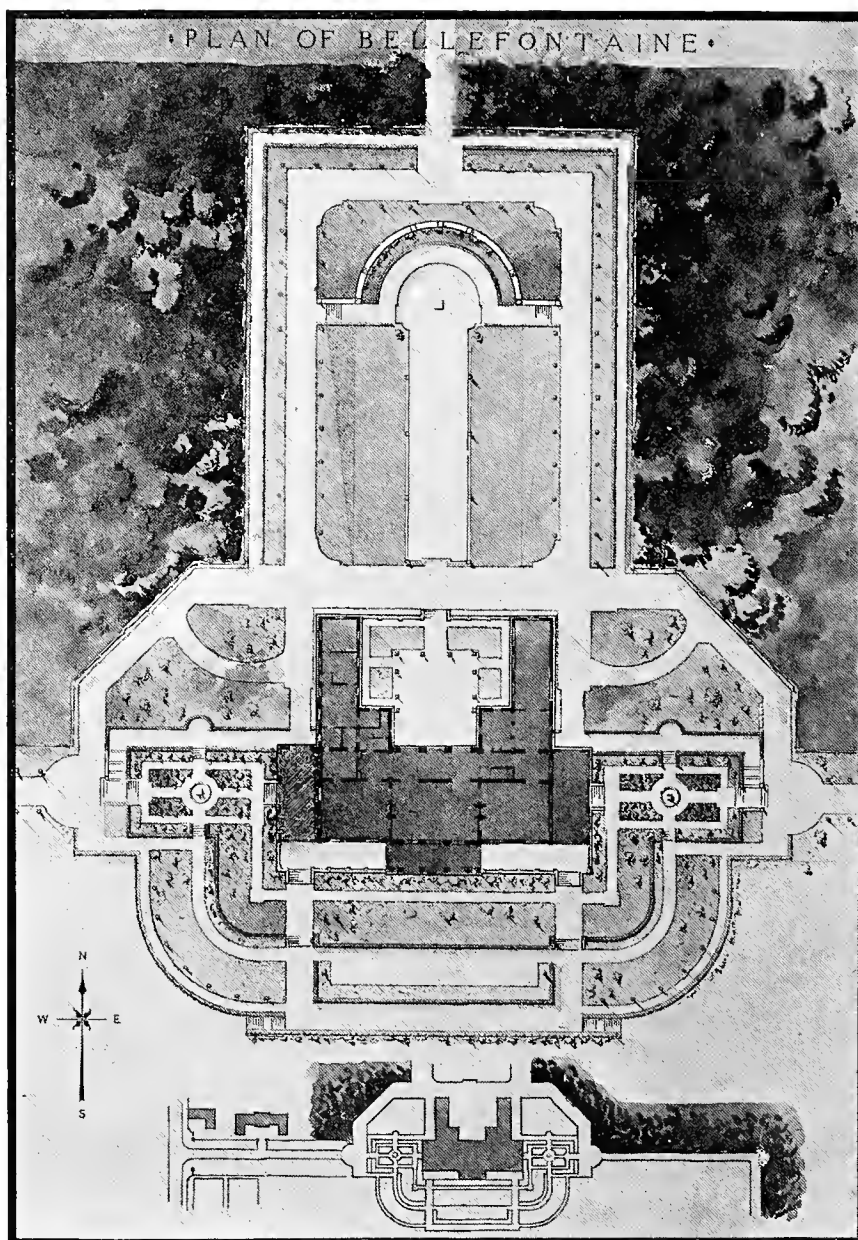
breaking rudely in upon Nature has only added a new beauty to it, we see in the house and graceful avenues of Bellefontaine. Before this monumental home is a broad gently rising upland continuing to a wood and then on to the hills of the village. Just before the wood stands the house. The wide façade and lateral lines of trees lying at right angles with the public road send the visitor on where he may look back and see at one view the stately and dignified whole.

A wide foreground of meadow becomes a clipped lawn sloping up to

the walls of a terrace, where vines fall loosely over white stonework. Above are walks and masses of flowers and small grass plats, carrying the green of the foreground to the base of balustrades and a white two-story colonnade. Attached to these are the walls of the house itself whose delicate colors dissolve above into a light sun-filled sky. From low arched porticos rows of Lombardy poplars extend upon each side like outstretched arms. Above their sharp young tops wave forest trees in one dark background. Architecture is here surrounded by conditions which give the highest effect. How the scene would have pleased an observer like Mr. Hamerton! Quite unconsciously of his dictum his three requirements for the setting of a house have been fulfilled. The "pedestal," he desired, is the rising lawn; the "margin" is the sweep of land bounded by the avenues; and the *adossement* is the forest. Viewed from a greater distance all the hills of Lenox would increase the value of the last. Thus Bellefontaine appears from the Stockbridge Road. It is a formal type of country home, to be sure, and its beauty is not one of loose picturesqueness. But we shall see in approaching the house, in walking the lawns and terraces, that formality of form ceases where walls and columns meet the

ground. From that point Nature's call for freedom has been heeded and the problem of setting a dignified structure with unyielding Renaissance lines in the midst of rolling, almost mountainous, country has been ideally solved.

Natural and artificial objects replace each other at successive stages from the soft meadow below to the focus of Art in the house itself. Had a poorer judgment led the design the whole property would have been stiffly surrounded and marked off by walls of cut stone and cold gray concrete walks, where walks were not needed. But these false accessories do not follow the traveler along the Stockbridge Road crying "Within us is Bellefontaine!" One lofty and impressive gateway marks the main entrance from the road. At this point the avenue commences and one approaches the house between two parallel lines of slender trees. When the sun is low the thin trunks make bars of shadow across the path and the fancy sees a long low flight of steps leading to the distant house instead of the smooth Macadam avenue. After passing the superintendent's house on the left, just inside the gate, a spot of light across the road is the only interruption in the long perspective. It is the entrance to the stable which stands



THE PLAN OF BELLEFONTAINE



AN END PORTICO

BELLEFONTAINE

on the left, around a courtyard enclosed within a high brick wall. The axis of the building crosses at right angles that of the avenue.

Continuing toward the house an arcaded portico shines in full sunlight beyond the shadows of the avenue and is framed like a picture in the cleft between the trees. At the bottom a low stone wall half-covered with creeping vines, retains a flower garden. Several stone steps ascend between two sentinel *cupressus Lawsoniana* to walks of broken stone which enclose and intersect four parterres. There is a freedom in the planting and skilful massing of flowers and bushes

within the terrace that gives a level setting to the building on three sides.

The drive turns to the left after leaving the avenue and goes on past the service wing of the house to the great formal courtyard cut into the woods, and of which we shall have more to say in another paper. But we have now turned to the right from the flower garden and we are on the grassed and planted terrace before the house. This space is divided into two levels of almost equal area and, though crossed by three walks near the edges, it has been kept as a quiet and unobtrusive foreground. There are no parterres here and only



THE HOUSE FROM THE LAWN

BELLEFONTAINE

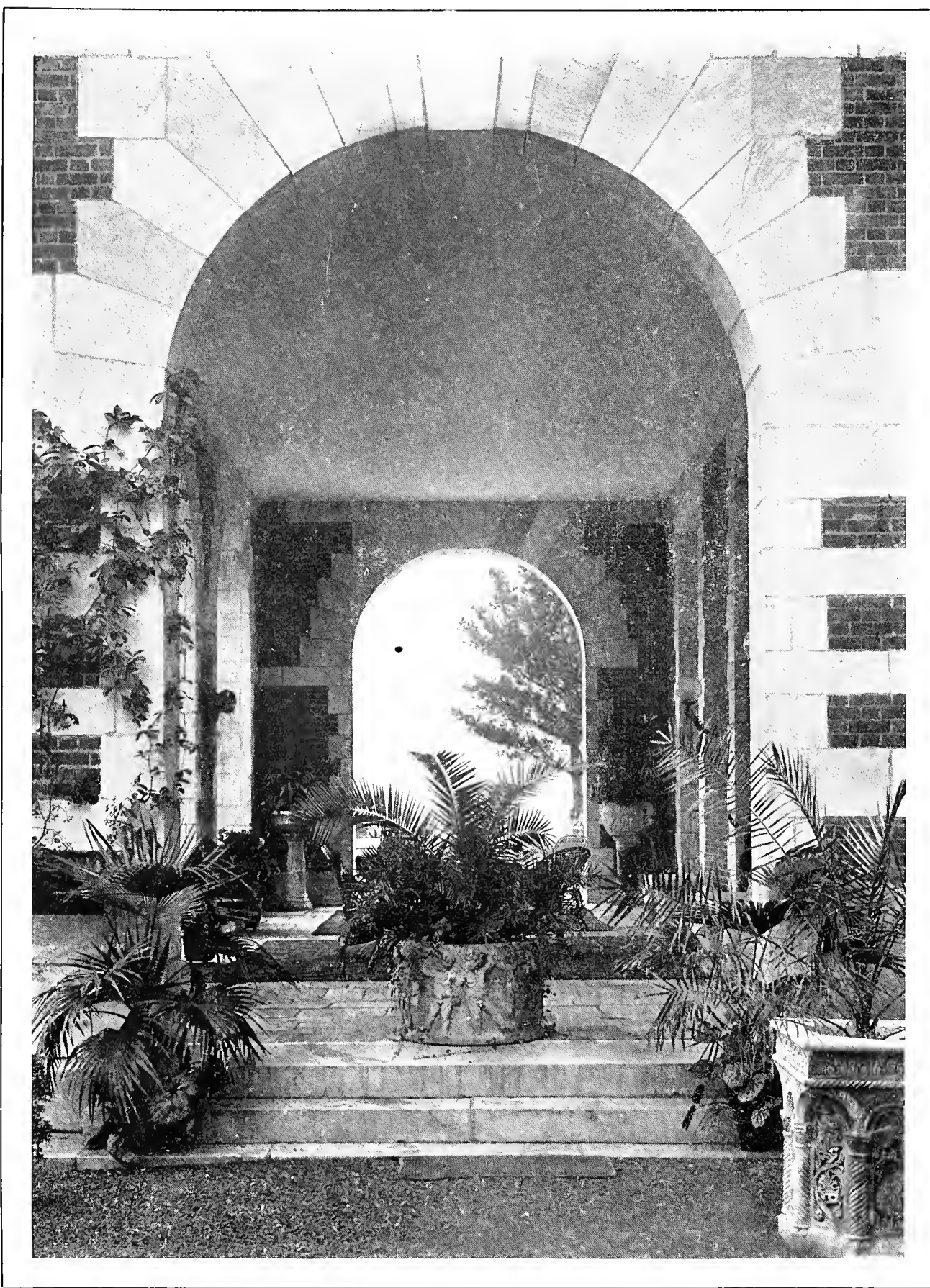
against the walls so as to give variety to the architectural lines and yet to preserve them. The beds are pied with petunias, nasturtiums and hollyhocks, while hydrangeas in boxes have been placed at important corners or at centres of spaces. A profusion of foliage crowds out upon the walks. The red *lychnis chalcedonica*, the *rosa rugosa* and the yellow *rudbeckia* are brilliant before the shadows in the arches of the portico. In the centre of all an Italian fountain plays a tinkling stream into a low basin and is an effective light object in the long perspective of house and avenue. There are two of these gardens, one at each side of the house, and they are enclosed

small clumps of shrubbery and flowers interrupt the lawn. The shrubs, becoming thicker on the upper level, reach up to the very bases of the great columns and hang over the balustrade. Standing in front of the central colonnade one looks between two stone pines across the descending fields. Below to the right are the greenhouses, and beyond is the barn; but these buildings are far enough away and below the eye to leave the wide view unmarred. It is a country of broken outlines of hills and many hues of wood and field passing into distant blue. The highway far off to the right, descending toward the south, is lost in a first few hills which hide



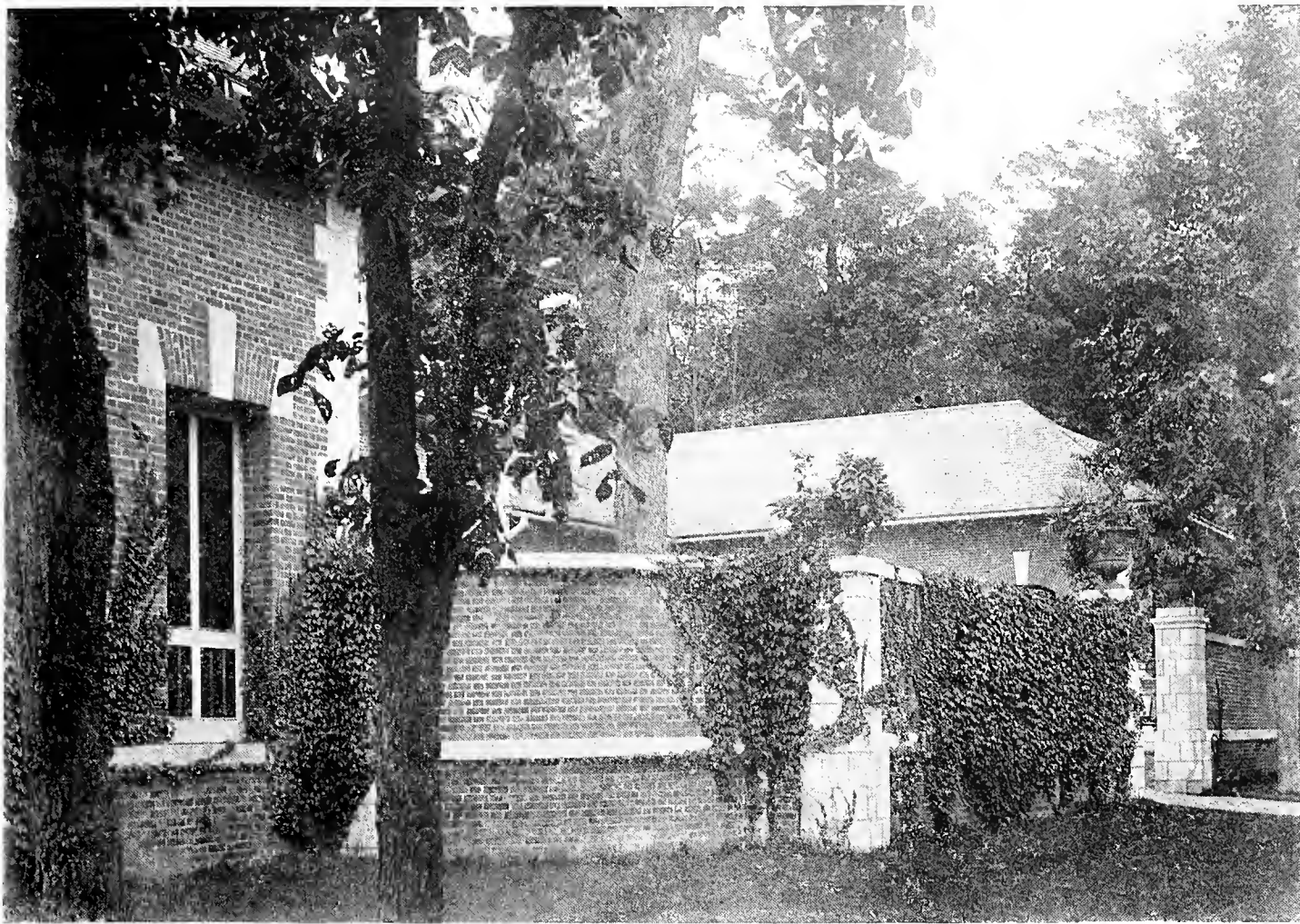
A WALK OF THE EAST FLOWER GARDEN

BELLEFONTAINE



THROUGH A PORTICO

BELLEFONTAINE



THE STABLE

BELLEFONTAINE

from view Lake Mac-keenac, called by the Berkshire folk "The Bowl."

The porticos at both ends of the house are important elements not only in the plan and elevation of the house itself, but in the surroundings, for several long axes meet and cross upon them. They provide the only outdoor living-space sheltered from the sun and rain, and it is well that not only the flower gardens spread a beauty a few feet below the marble floors, but that most of the best vistas of Bellefontaine can be enjoyed from under the



ENTRANCE TO THE STABLE COURT

arches. Upon the east the view down the popular avenue (corresponding to the one by which we have approached) ends in a semi-circular pergola, placed so as to face the house and at an angle of the dense background of wood. The drive now leaves the shelter of the poplars at right angles and skirts the straight edge of forest which flanks on the east the fields before the house. We have thus traversed the southern front of Bellefontaine. The north side of the house with the formal garden we shall see in our following number.

THE BEAUTIFUL NECESSITY:

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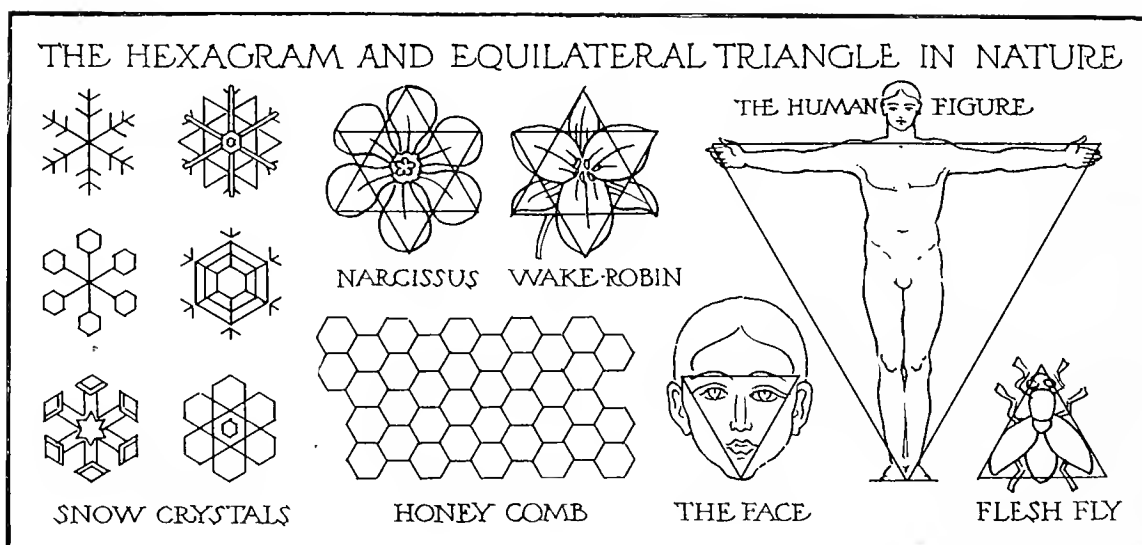
THE RULE OF THREE.¹

WALTER PATER has said that all art constantly aspires towards the condition of music. This is perhaps because all art has its root in number, being in one of its aspects only a system of harmonious numerical ratios, of which music is the direct sensuous expression. Everything in its last

and mystic symbol, popularly known as Solomon's Seal, or the Shield of David.

It appears that this, the equilateral triangle, taken singly, doubled, and in the form of the regular hexagon, is one of nature's archetypes, or universal patterns, for it occurs in the snow-crystal, in the bee's cell, in flower forms without number, and it can be traced, —though more obscurely— in insect and animal structure, and even in the body of man himself.

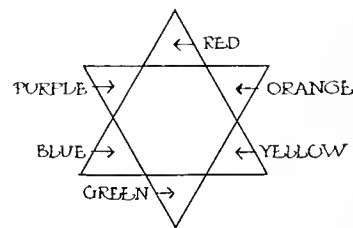
It is not surprising that a figure of such significance in nature is of importance also in



analysis is number; and geometry is the manifestation of number in space. The ancient Pythagorean precept, and the latest generalization of modern science meet here on common ground.

When ideas enter phenomenal life they assume perforce a threefold aspect. They appear as cause operation and effect; or they take on the three dimensions of length breadth and thickness. Of this number three, an equilateral triangle, the simplest of symmetrical plane figures, is the geometrical equivalent; and if this pair, one of the two symbolizing time, and the other symbolizing space, be represented by means of intersecting equilateral triangles, forming a hexagram, the resultant figure is that ancient, beautiful,

art, for art is "idealized creation,"—nature carried to a higher power by reason of its passage through a human consciousness. According to Schopenhauer, it is possible to resolve all music into two chords, the dominant seventh, and the tonic; one of longing and striving, and the other of rest and fulfilment. These are to be conceived of as the interlaced equilateral triangles of harmony,

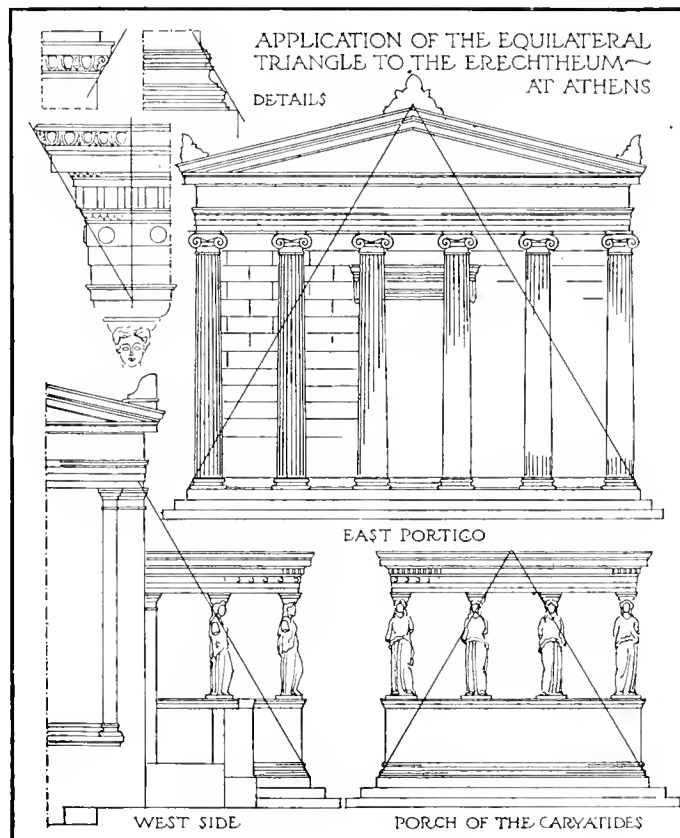
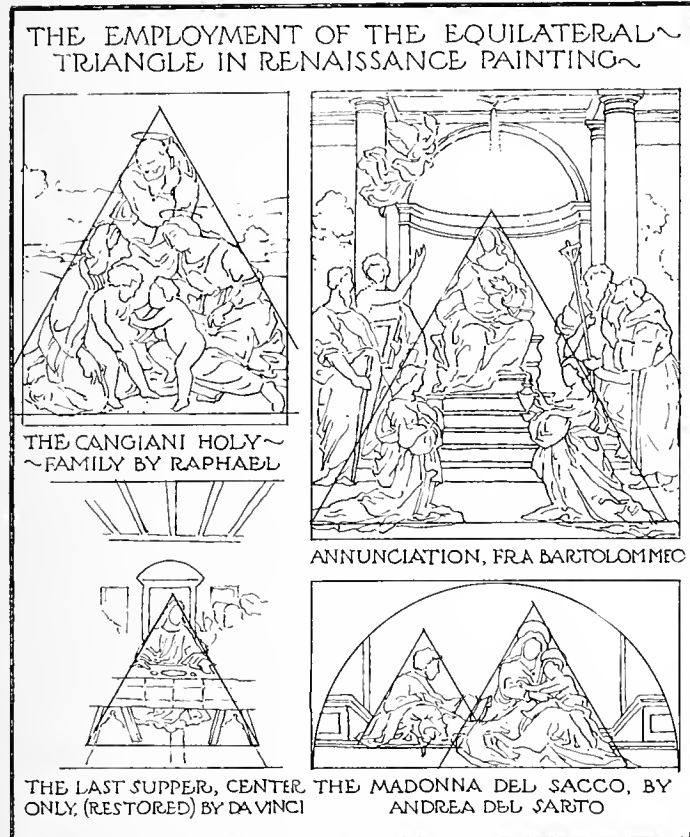


for three is the least number of notes of which a chord can be composed, as it is the least number of lines with which it is possible to enclose a space. The hexagram of color is more familiar consisting, as it does, of the

¹ This is the first of a series of six essays by Mr. Bragdon, in which are elaborated those theories concerning art generally and architectural art in particular as set forth in his notable speech: "Mysticism and Architecture," delivered before the Third Annual Convention of the Architectural League of America. The papers will appear in consecutive numbers of HOUSE AND GARDEN.

three primaries: red, yellow and blue, and the three secondaries: orange, green and purple. Three colors are required to form

as Symonds says of Leonardo, "to submit the freest play of form to simple figures of geometry in grouping." Alberti held that



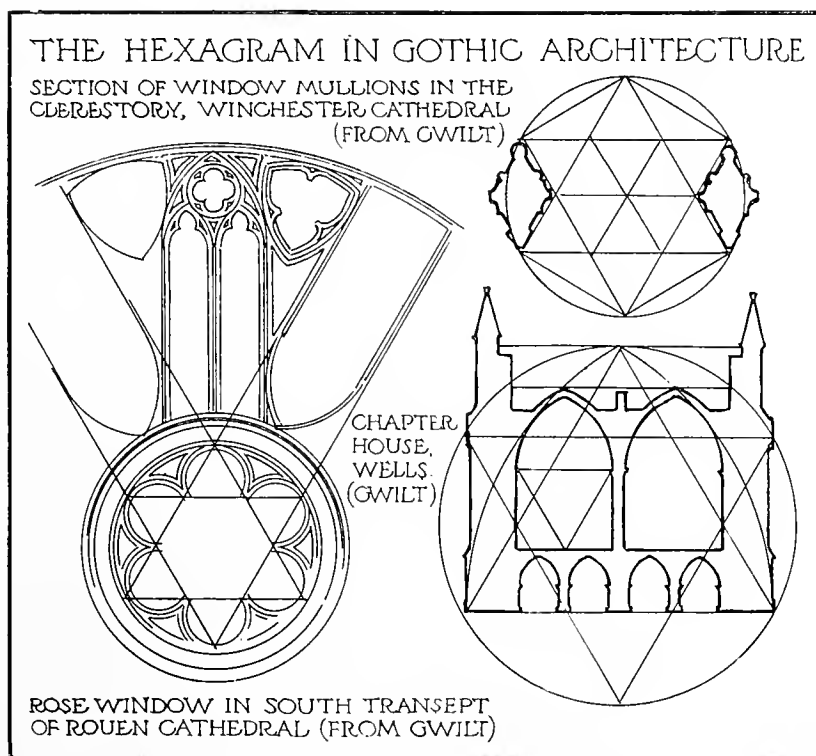
the chord, which comprises any given color and its complementary, one of the two being, of course, a binary.

The important part played by the equilateral triangle in the art of painting can be little more than suggested within the limits of this article, but any interested reader can easily pursue the subject for himself. It will be sufficient to instance only a few world famous pictures, painted during the golden noon of the pictorial art—the Renaissance period in Italy.

The problem which preoccupied the painters of that time was,

the painter should above all things have mastered geometry; and it is known that the study of perspective and kindred subjects, was widespread and popular. The first artist to achieve a thoroughly scientific scheme of

composition, based on geometrical principles, seems to have been Fra Bartolommeo, in his Last Judgment, in the church of S. Maria Nuova, in Florence. Symonds says of it: "Simple figures—the pyramid, and the triangle, upright, inverted, and interwoven like the rhymes of a sonnet—form the basis of the composition."



This system was adhered to by the Fratre in all his subsequent works." Raphael, with that power of assimilation which distinguishes him among men of genius, learned from Fra Bartolommeo this method of disposing figures, and combining them in masses with almost mathematical precision, and the equilateral triangle was one of his favorite devices. This even a cursory study of his works will show.

It would have been indeed suprising if Leonardo da Vinci, in whom the artist and the man of science were so wonderfully united had not been greatly preoccupied with the mathematics of the art of painting. His Madonna of the Rocks, and Virgin on the lap of Saint Anne, in the Louvre, exhibit the very perfection of pyramidal composition. It is, however, in his masterpiece, the Last Supper, that he combines geometrical symmetry and precision with perfect naturalness and freedom in the grouping of individually interesting and dramatic figures. The twelve apostles are distributed in four groups of three each about the figure of Christ, which, artfully isolated from the others, is exactly contained within a well defined equilateral triangle; while from the head of this figure, *i.e.*, from the apex of the triangle, the simple perspective lines of the room radiate.

Michael Angelo, Andrea del Sarto, and the great Venetians, in whose work the art of painting may be said to have culminated, recognized and obeyed those mathematical laws of composition known to their immediate

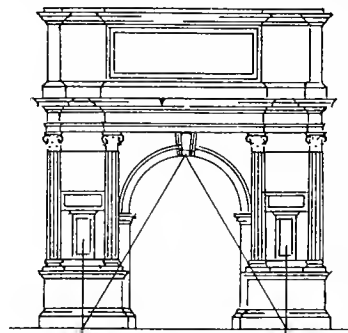
predecessors, and the decadence of the art may be traced not only in the false sentiment and affectation of the period, but also in the abandonment by the artists of those

obscurely geometrical arrangements and groupings which, in the work of the great masters, so satisfies the eye and haunts the memory of the beholder.

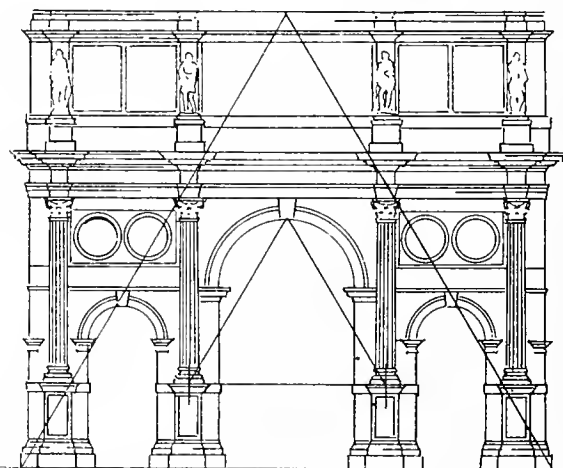
Architecture is the most closely related of all the arts to geometry. Indeed, in a certain sense, architecture is geometry made concrete and ponderable. As Emerson says, "The pleasure a palace or a temple gives the eye is that an order and method has been communicated to stones, so that they speak and geometrize, become tender or sublime with expression." Over and above its obvious geometry, every truly great and beautiful work of architecture is harmoniously proportioned, both as a whole and as to its parts, by reason of these being in a manner coincident with certain simple symmetrical figures of geometry. These, though invisible to the sight, and not consciously present in the mind of the beholder, serve to co-ordinate the entire fabric into one memorable whole. Chief among such

figures, by reason of its peculiar properties and perfection, is the equilateral triangle. It would seem that the eye has an especial fondness for this figure, just as the ear has for certain related musical sounds. It may be stated as a general rule, that whenever three important points in any architectural composition approximately coincide with the three

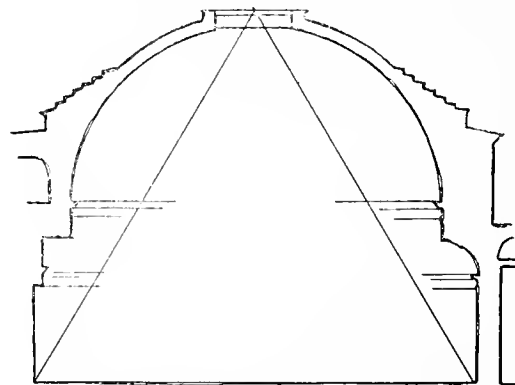
THE EQUILATERAL TRIANGLE IN
ROMAN ARCHITECTURE



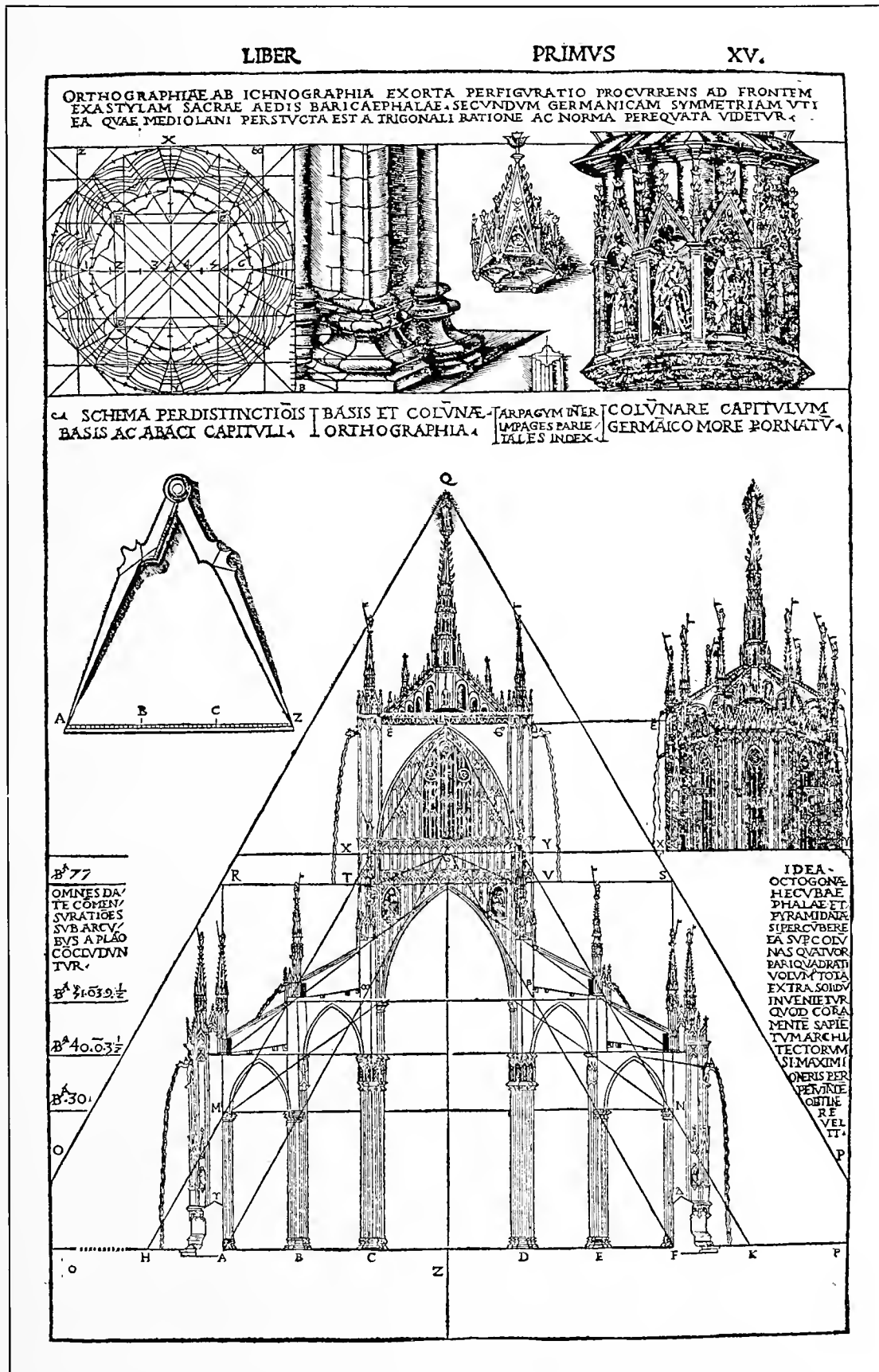
ARCH OF TITUS, ROME



ARCH OF CONSTANTINE, ROME



A SECTION OF THE PANTHEON, ROME

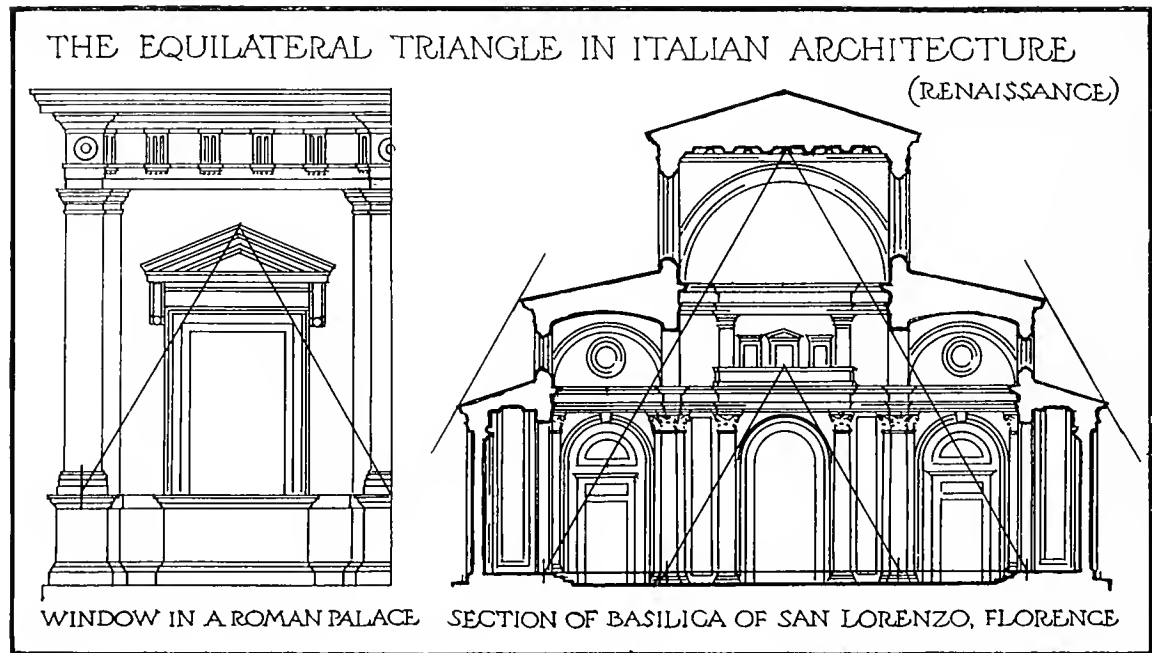


A PLATE FROM THE COMO EDITION OF VITRUVIUS

extremities of an equilateral triangle it makes for beauty of proportion.

An ancient and notable example occurs in the pyramids of Egypt, the sides of which, in their original condition, were it is believed equilateral triangles. It is a demonstrable fact that certain geometrical intersections give

tration from the Como edition of Vitruvius, published in Milan about 1521, which shows a vertical section of the Milan cathedral, together with the system of equilateral triangles which determined its principal proportions. The architects of the Italian Renaissance, inheriting the Roman tra-



the proportions of the Greek orders. The perfect little Eretheum of the Athenian acropolis would seem to have been proportioned by means of the equilateral triangle, both in general, and in detail. The same figure, in conjunction with the square and the circle was employed by the Romans in designing triumphal arches, basilicas, and baths. The *vescia piscis*, consisting of two arcs of a circle enclosing a double equilateral triangle was often used during the Middle Ages in laying out the plans of churches and cathedrals. It is scarcely an exaggeration to say that an entire system of window tracery was based upon the circle and the equilateral triangle. That the latter figure was a determining factor in the proportioning of Gothic buildings is sufficiently proven (if such proof were needed) by the accompanying facsimile reproduction of an illus-

tration in such matters, constantly recognized this essential principle of monumental design.

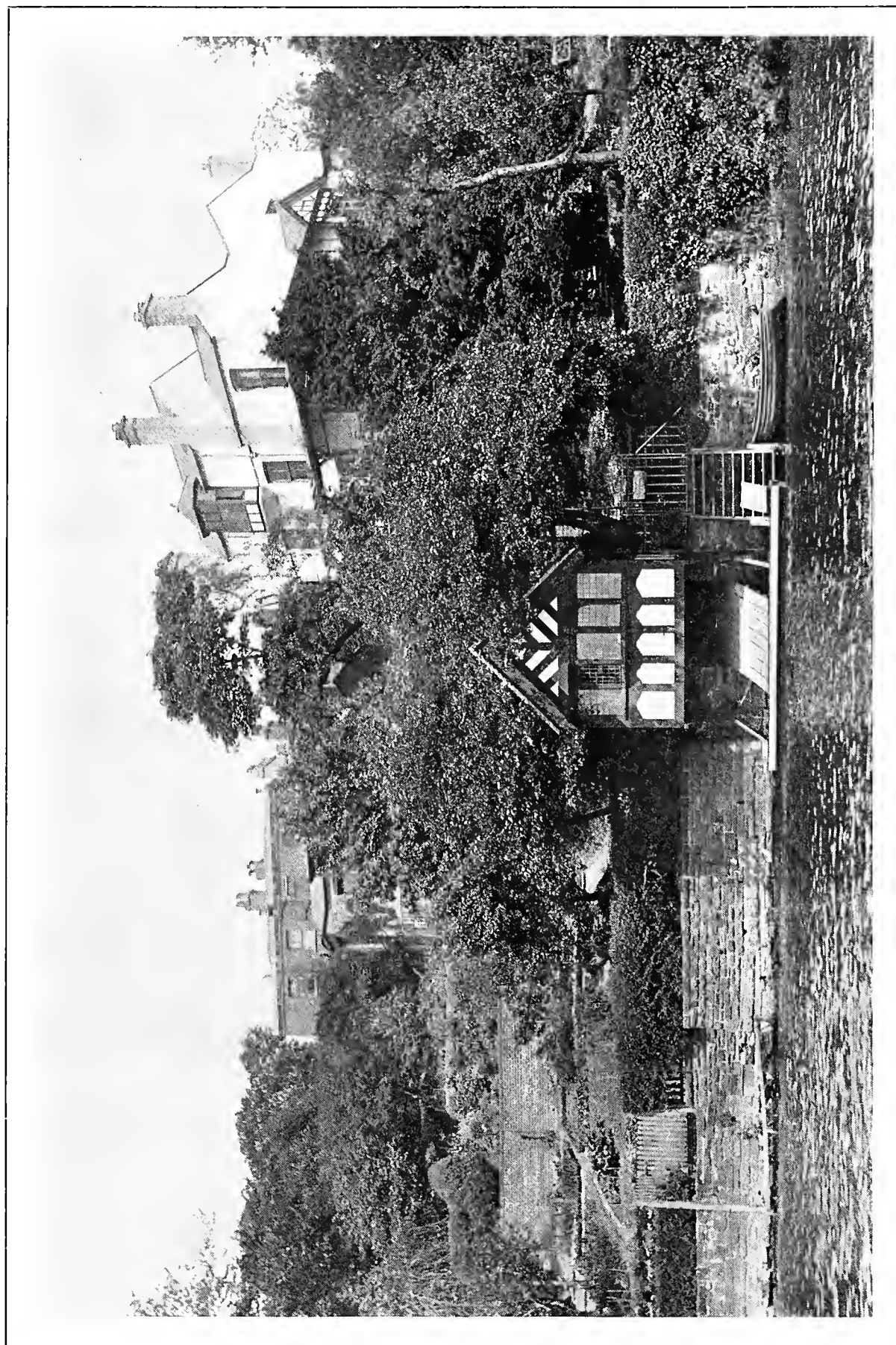
There is abundant evidence in support of the theory that the builders of antiquity, the masonic guilds of the Middle Ages, and the architects of the Italian Renaissance followed certain geometrical rules of proportion; but even though this theory be denied or disproven,—if after all these men obtained their results working unconsciously and at hap-hazard,—the fact of the existence of such rules remains unchanged for, as has been well said, “the artist follows the rules without knowing them.” Laws of beauty there are, of which this Rule of Three is one, which are “dependent on the nature of human intelligence”—deep as the foundation of the world.

Claude Bragdon.





BYWAYS OF ENGLAND
ON THE OUTSKIRTS OF DORKING, SURREY



BOAT-HOUSE AND GARDENS

BYWAYS OF ENGLAND
Negatives by Thos. B. Temple

ON THE RIVER DEE



AT SOUTH HINKSEY

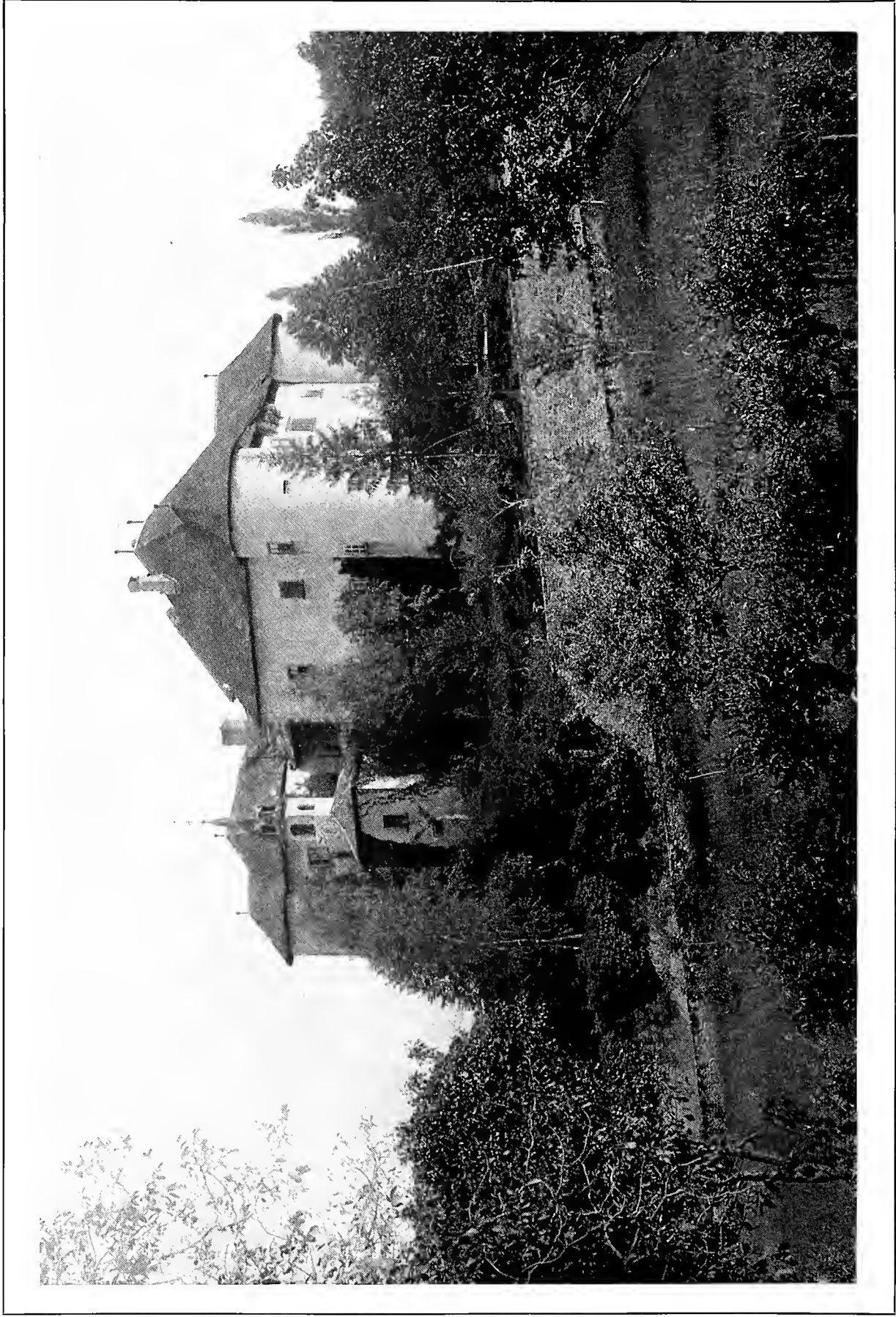
NEAR OXFORD



AT NORTH HINKSEY

NEAR OXFORD

BYWAYS OF ENGLAND



CASTLE GANDEGG, IN EPPAN, TYROL

TYROLESE ARCHITECTURE.

II. FEUDAL.

BOTZEN is now a thriving town of the Tyrol and one of the busiest. Situated in the geographical centre of the province it also lies in the most important valley. Over the chain of highways following as best they could the waters of the Sill, the Eisak and the Adige, a certain amount of traffic across the Alps has always made its way. Botzen was an important point upon the route. It still remains the commercial centre of the Tyrol, though unrenowned beyond the borders of that country. In arriving here from the north the traveler has left the Brenner Pass nearly sixty miles behind and finds himself on the watershed of Italy. Southern characteristics in the architecture are apparent. The life in the streets, the fruit stalls and gay costumes foretell the scenes of

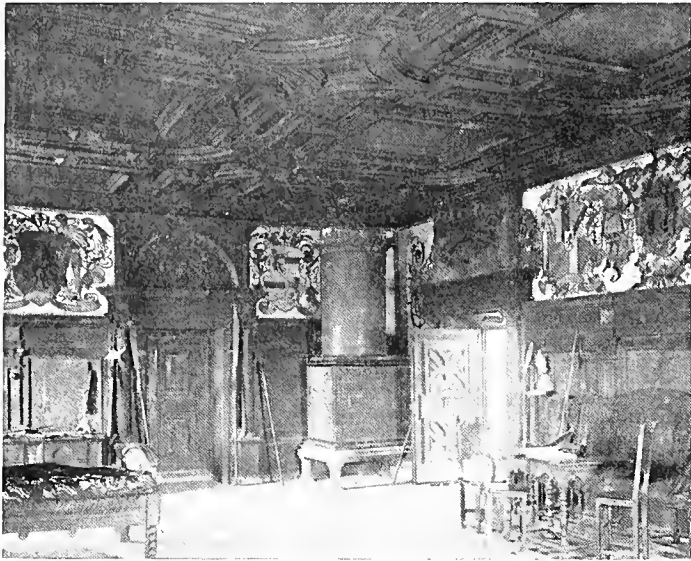
thronged Italian cities. No less than four streams and their highroads meet near the town; and beyond narrow arcaded streets are wide mountain views and castles appearing on the nearer hillsides. The neighborhood of Botzen is indeed one of the best for the study of feudal buildings of the Tyrol and it is here that the examples considered in this article are chiefly to be found.

A pleasant excursion from the town takes one across the Talfer brook and up to the heights of Eppan. On that elevated plain, near the village of St. Michael, is Castle Gandegg, one of the most beautiful in the Tyrol. The graceful masses that now appear above the fir trees of a well-kept park are not the original construction, for a dark ivy-covered wall half-hidden in shrubbery farther up the hillside recalls a former *burg*. The peasants tell that the fragment was part of a tower carried away in the year 1001 by a

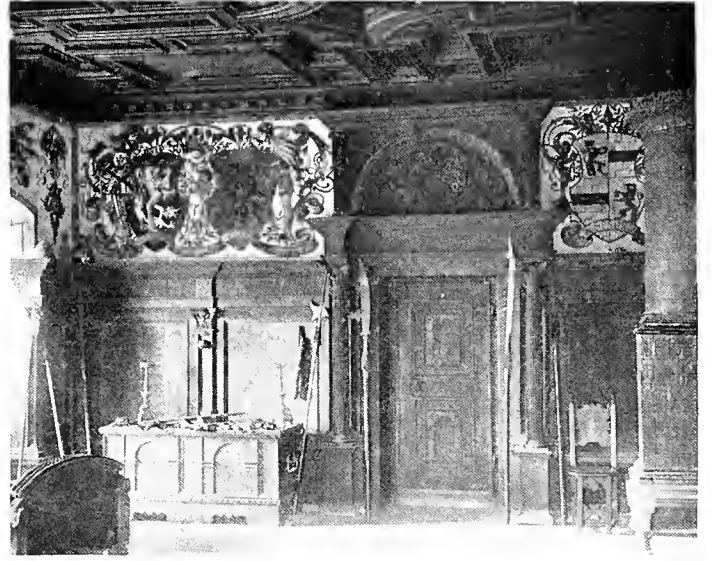


CASTLE GANDEGG

EPPAN, TYROL



INTERIORS



CASTLE GANDEGG

landslide from the Gantkofel. The name of the present building recalls the catastrophe. (*Egg* is from *ecke*, a corner, thus *Gandegg*; a corner of the *Gand*.) Probably with a view to safety the later structure was reared at

some distance below the original site, and either by this foresight or the favor of Nature a very good ensemble has been preserved. Bold circular towers at each corner of the main building make an almost symmetrical



SCHLOSS TROSTBURG

NEAR WAIDBRUCK, TYROL

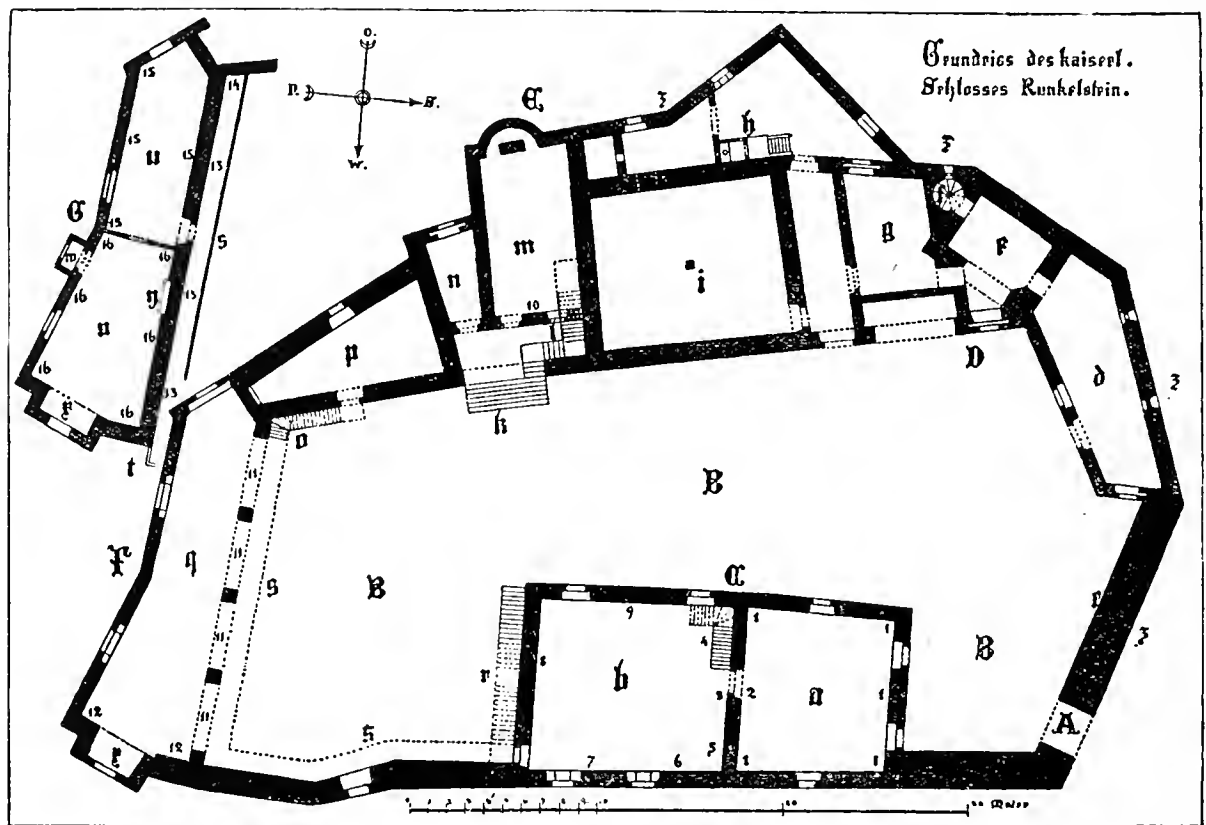


ENTRANCE TO BURG RUNKELSTEIN

NEAR BOTZEN, TYROL

arrangement. At one side is joined the chapel whose light spire adds to the picturesque outline of the group. Formerly Gandegg was surrounded by protecting walls.

They were added in the XV Century by the Freudensteins, a family celebrated throughout the Tyrol for power and landed property. In 1550 the Emperor Ferdinand presented



PLAN OF BURG RUNKELSTEIN.

A—The Entrance Door.

B—The Courtyard.

C—The Palace.

D—Keeper's Dwelling.

E—The Emperor's Room.

F—Vintler's Summer-house.

G—The Knights' Halls.

The Palace C embraces two rooms, *a* and *b*.

On the ground floor of *a* is an open hall,

on the 1st floor, the "Inlaid" Room,

on the 2nd floor, the "Bathroom,"*

on the 3rd floor, the Arms Room.*

On the ground floor of *b* is the Drinking Hall,
on the 1st, 2nd and 3rd floors, clear up to the roof, is
a Great Hall* with frescoes.

c—Connecting passage from the room on 1st floor to the
Southern Rampart.

d—Keeper's Dwelling, over which is the Southern Rampart.

e—The Tower.

f—Winding Stairs.

g—Keeper's Dwelling.

h—The Jail, over which is the Eastern Rampart.

i—On the ground floor, the Wine Fermenting Room,
on the 1st and 2nd floors, the Emperor's Rooms.

k—Stairs to the Chapel.

l—Stairs to the Emperor's Rooms.

m—The Chapel.*

n—The Sacristy.

o—Stairs to the Kitchen.

p—The Kitchen, now a closet.

q—Vaulted Hall.*

r—Outside Stairway to the Palace.

s—Western Rampart and Wooden Corridor* to the
Knights' Halls.

t—Balcony overlooking the vale of the Talfer.

u—Tristan's Room.* } The Knights' Halls.

v—Garel's Room.* }

w—Projection overlooking the Sarn valley.

x—Projection overlooking the valley of the Adige.

y—Chimney piece.

z—Moat with bridges to the Entrance Door.

EXISTING FRESCOES :

- 1—In the Palace *a* on the 2nd floor, "Bathroom" with portraits.
- 2—In the Palace *a* on the 3rd floor, Arms Room with Tilting Games.
- 3—In the Palace *b*, Tournament.
- 4—In the Palace *b*, Racquet Game.
- 5—In the Palace *b*, Court Dance.
- 6—In the Palace *b*, Bear Hunt.
- 7—In the Palace *b*, Wild Boar Hunt.
- 8—In the Palace *b*, Mountain Chase for chamois, wolves and bears.
- 9—In the Palace *b*, Fishing Scene.
- 10—In the Chapel, Martyrdom of Christ and of the Holy Catherine.
- 11—In the Summer-house, Vaulted Hall, portraits of the German Emperors and allegories.
- 12—In the Summer-house, Vaulted Hall, the Wigalois frescoes.
- 13—14—In the Summer-house, on ceiling below Corridor, the Triads.
- 15—In the Summer-house, the Tristan Cycle.
- 16—In the Summer-house, the Garel Cycle.

* These rooms contain wall paintings.

the building to one of his secret counsellors who made many repairs still visible in the castle's now excellent condition. The defense walls have long since disappeared and the old edifice is at peace with its surroundings. Under present owners, who have embellished the interior, feudal memories have faded and Gandegg has become a luxurious home.

The gray towers of Schloss Trostburg are a splendid landmark upon the mountain side above the village of Waidbruck, at the mouth of the Grödnerthal. A rocky promontory over two thousand feet above the sea has given foundation for an imperious pile commanding as wide a prospect as a jealous lord could ever have desired. The fore buildings of the entrance stretch up the mountain side while stray crumbling walls in a ravine below show the great extent of the original fastness. Pyramidal roofs and small windows, many of

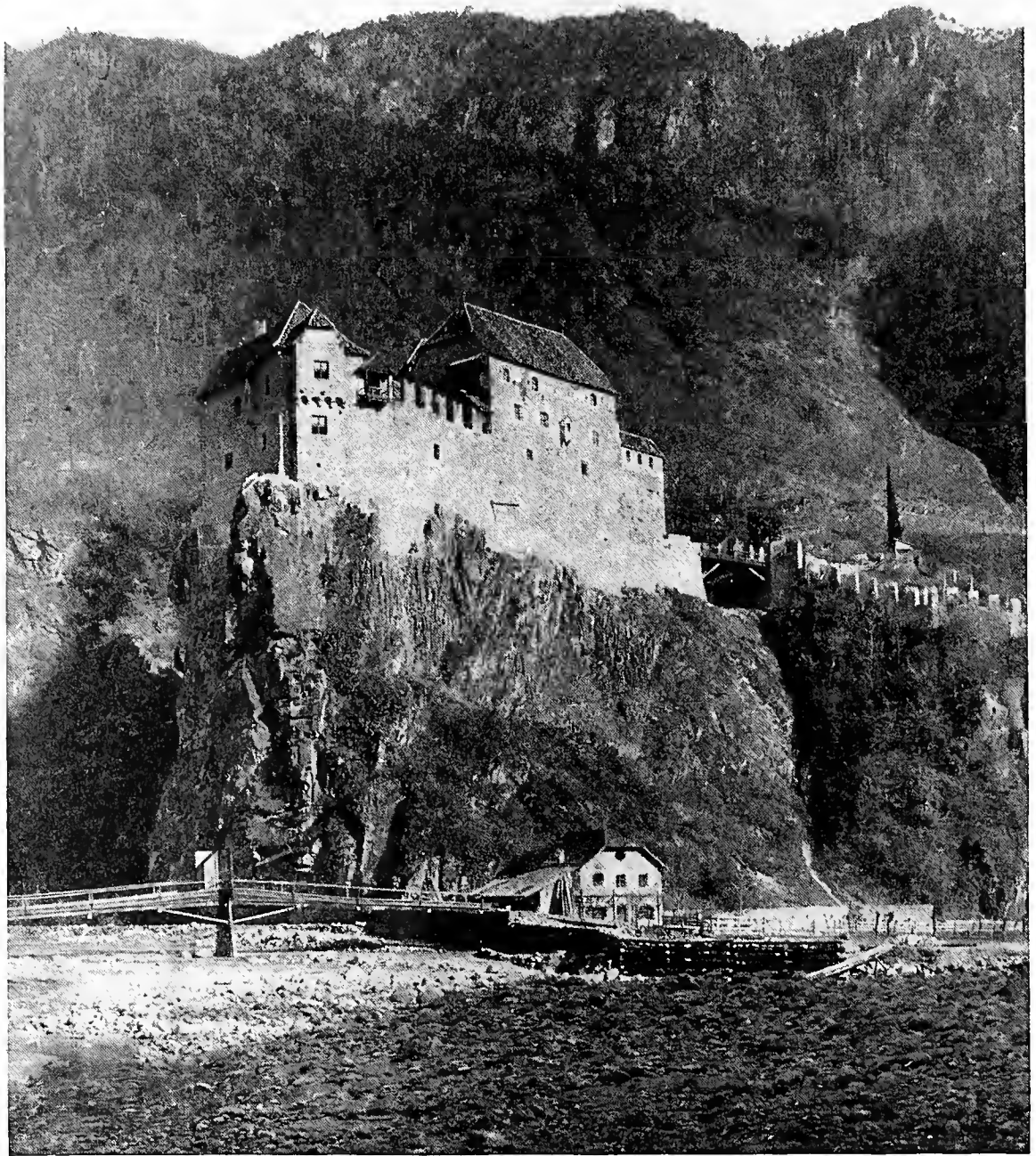
them embrasured and surrounded by plain bands of stone, characterize the building. Here as at Fischburg (see *HOUSE AND GARDEN* for December, 1901) the walls have been roughly plastered and irregular quoins mark the corners in a rudely decorative way, at harmony with the unfinished and vigorous architecture of defense.

The most interesting building in all the Tyrol is probably the Castle of Runkelstein. Upon a rocky eminence rising from the confluence of two streams near Botzen it has a background of higher mountains of the same stone which has passed into its walls. It is far more than a specimen of one epoch, or locality, or the caprices of a single family, for it summarizes the different phases of Tyrolese life existing during all the periods of its construction. The Romans must have been struck with the commanding position of its



RUNKELSTEIN FROM THE SARN VALLEY

NEAR BOTZEN, TYROL



RUNKELSTEIN FROM THE ADIGE

NEAR BOTZEN, TYROL

pile of rock overlooking several valleys, for they had a watch tower there long before Runkelstein itself was reared. In 1237 history begins to relate the vicissitudes of the present building. It was then that the Bishop of Trent gave permission to build the castle to Sir Frederick and Beral, sons of Adalpera of Wanga, under condition that

the house should always be open to the bishops of that city. It had stood but fifty years, however, when it was taken by the violence of Meinhard and left a ruin. Having reverted to the see of Trent it was given about the year 1390 as a feudal tenure to the brothers Niklas and Franz Vintler of Botzen. By these lords Runkelstein was



VINTLER'S SUMMER-HOUSE

BURG RUNKELSTEIN

almost entirely rebuilt. Manors, a chapel and two towers were added and also on the northern side the interesting summer-house.

Niklas the Vintler, as he was called, was the richest and most powerful of his house, and some feeling he must have had, too, for the amenities of his time for he adorned with frescoes at least five of the castle halls. In these rooms were welcomed knights, artists, poets and singers. It was here that copies of

books were made and where early chronicles were written by the castle chaplain. Vintler's greatest contributions to the build-

ing, however, were the elaborate decorations of the summer-house. On the walls of the first story over the arches are pictures of German Emperors in medallions of gray and green adorned with golden crowns. On the interior between the arches are the faded remains of the Wigalois Cycle, while the ceiling

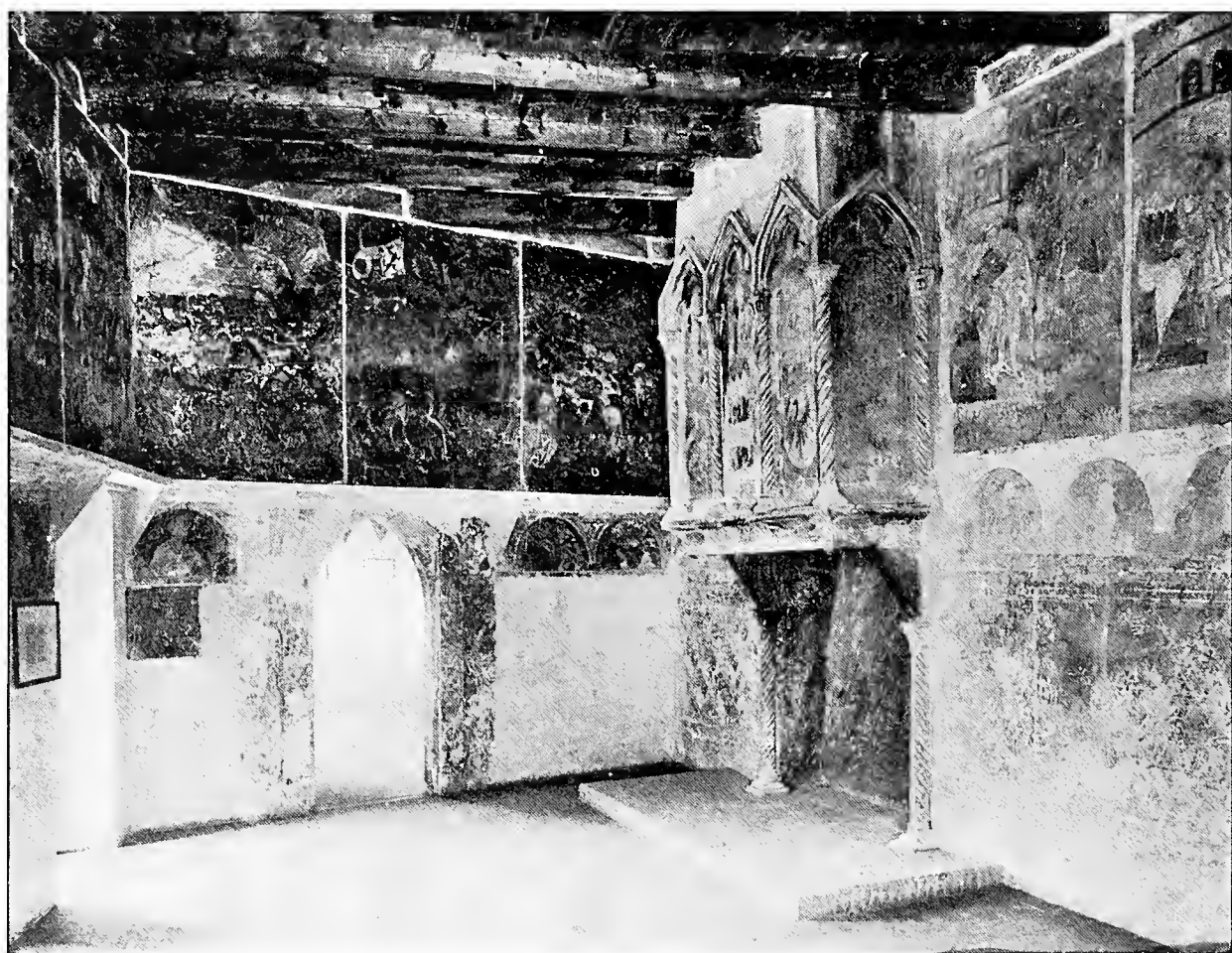


COURTYARD OF RUNKELSTEIN

bears triads of modern heroes of history, famed giants and favorite dwarfs. But these are of minor importance compared with the celebrated Tristan Cycle. In a series of thirteen pictures the story of Tristan and Isolde is told as the artist gathered it from the poem of Gottfried of Strasburg. The mystical and poetic beauty of these scenes, pictured by Tyrolese art of the early XV Century, is indeed remarkable; and Wagner, it is said, was so impressed by them that they inspired some of his compositions. In a hall adjoining that of Tristan is the Garel Cycle, forming a deep frieze immediately below the heavy brown timbers of the ceiling. About the middle of the XIII Century the poet Pleir of Salzburg sang of Garel, a hero of Arthur's Round Table. The strange adventures of the gallant knight are faithfully related in eighteen scenes. Unfortunately several of the pictures are so

marred by time as to be scarcely distinguishable. On the south side of the hall in the midst of the Germanic spirit of the wall decorations is an Italian Gothic mantel with polychrome twisted columns.

Upon a visit to Runkelstein in 1500 the Emperor Maximilian directed the decaying frescoes to be renovated by the painter Frederick Lebenbacher of Brixen. The buildings were ordered to be strengthened for defense. As events proved, this labor was to be thrown away, for twenty years later the whole southeastern part of the castle was demolished by an explosion of gunpowder kept in one of the lower rooms. For ten years Runkelstein remained in a forlorn condition of partial ruin, its moat filled with debris. Again rebuilt, and this time by Sigmund of Brandis, the ownership passed during a period of over three hundred years from clergy to monarchs and again to clergy.



THE GAREL HALL

BURG RUNKELSTEIN



COURTYARD OF FREUDENSTEIN



ENTRANCE TO FREUDENSTEIN

The inattention the castle then suffered was not without effect, for in 1868 the roofs had decayed and the walls had fallen together when the rock, carrying the northern wall of the summer-house, gave way and took with it that beautiful addition of Vintler's and two pictures of the Tristan Cycle. In 1880 the ruin was bought by the Archduke Johann Salvator and presented to Emperor Franz Josef I. By the wisdom of this monarch the castle was carefully restored and made accessible to visitors. The work was entrusted to the architect and building counsellor, Frederick von Schmidt. Nine years later it was given by imperial deed to the city of Botzen



COURT OF SCHLOSS MARETSCH

“that its rich medieval construction might be preserved to future generations as a monument of Tyrolese history and poetry.”

A short distance north of Runkelstein a huge brown rock has parted from the mountain side and juts out from the banks of the Talfer. It supports a somber tower, the dominant form of Schloss Ried. The Romans watched from the little eminence the cattle trail to Sarnthein, and a tower built for this purpose by Roman workmen forms half the height of the square shaft shown in our illustration. When the Wanga acquired Runkelstein they were glad to take in this fortification as a rear defense of the larger castle, and they immediately

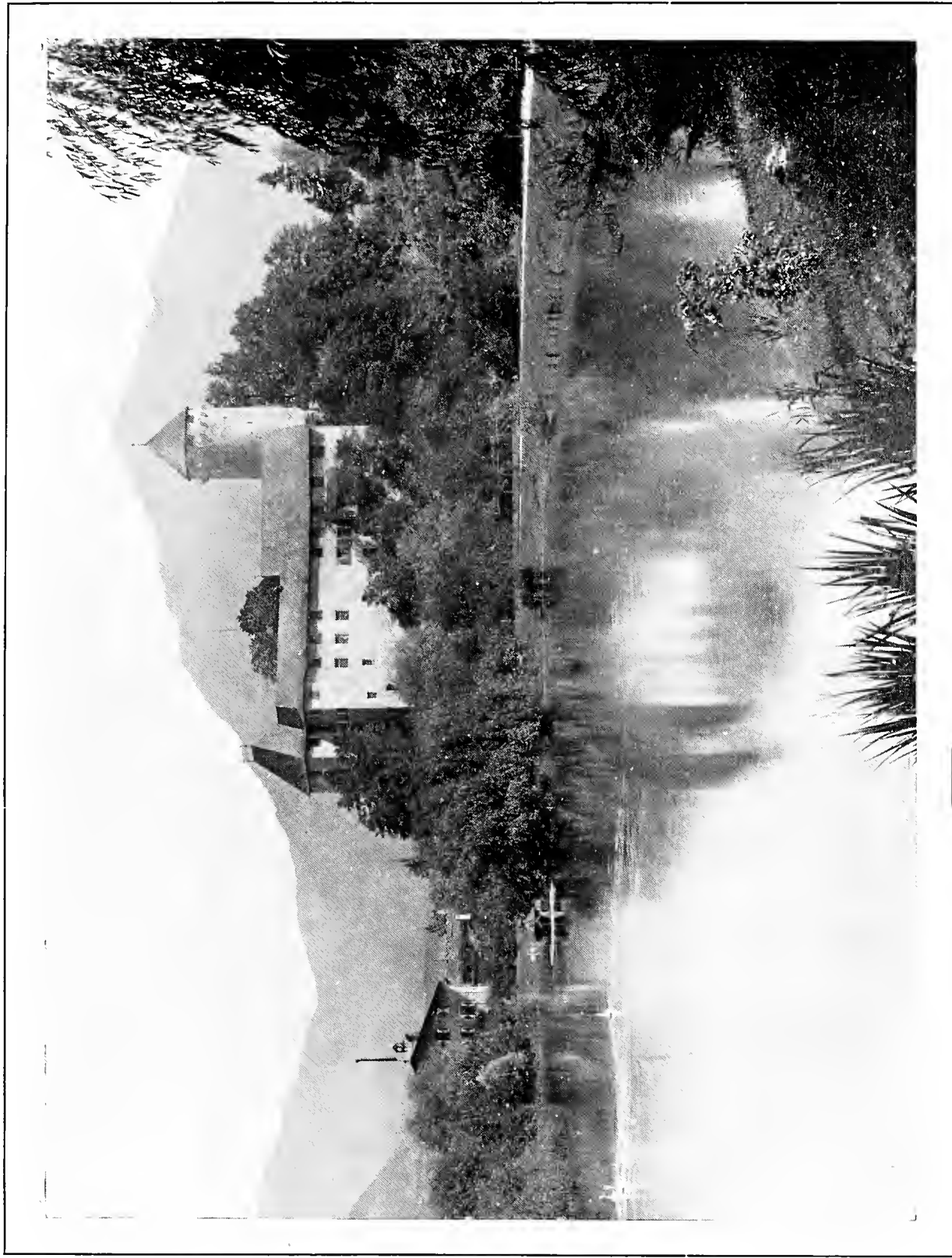
increased the height of the tower and terminated it with battlements. The nobles of Ried came into possession later and found the space of the narrow plateau too restricted for any development but that of height. On three

sides they made additions three stories high. A chapel was placed on the side farther from the Talfer but it can only be seen from a turn of the stream lower on its course. The scanty room was so needed for dwelling space

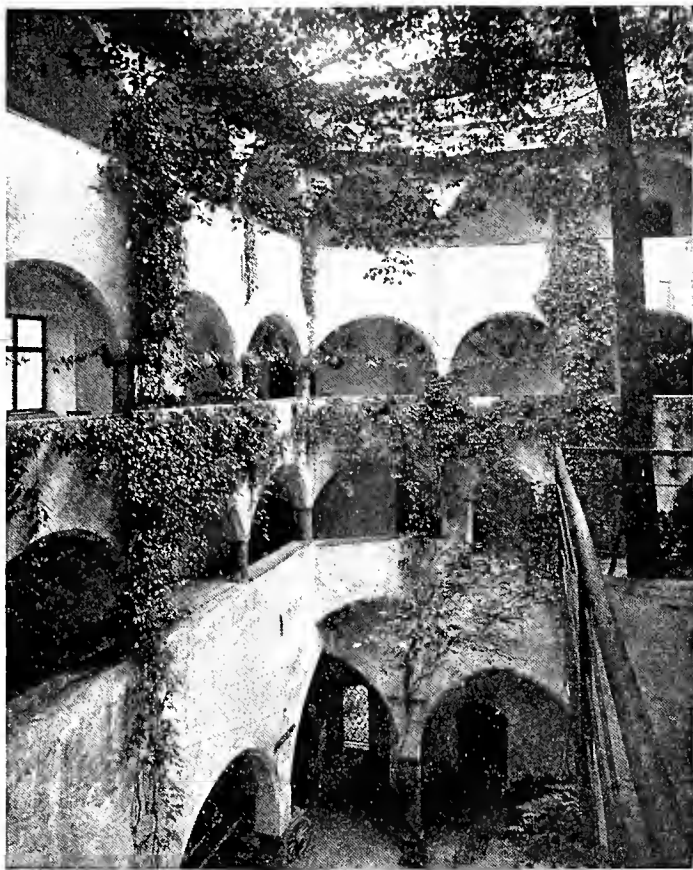


SCHLOSS RIED

NEAR BOTZEN, TYROL



SCHLOSS MATZEN, NEAR JENBACH, TYROL



COURTYARD



SCHLOSS MATZEN

that stairways were placed outside the walls and the courtyard was so restricted as to

hardly justify the name. Ried was in fact one of the smallest strongholds in the



A STUBE IN SCHLOSS REINECK

SARNTHEIN, TYROL



A ROOM IN CASTLE CAMPAN

AT KALTERN, TYROL

Tyrol, and though sufficiently threatening for the narrow Sarntal, its interiors were too meagre and uncomfortable for it to have much latter-day importance. Once within the last century it was a custom house on the Sarntal road, and after a long idleness it was bought by the City of Botzen for an electric plant. Even that purpose it has failed to serve and it now contains an inn. It is a poor shelter indeed where the Tyroler refuses to eat and drink.

From the Talfer Bridge at the west end of Botzen, Schloss Maretsch is visible above the dikes of the stream in the foreground. Though once fortified it has no longer the impregnable appearance of other castles and scarcely enough to appropriately house the Botzen Militia, a purpose for which it is now used. The Castle of Freudenstein stands near by on a well cultivated hillside, and also the three square towers of Reineck. The masonry of the latter castle is of roughest rubble of small pieces. Single rows of

dressed stones surround openings whose width is equalled by the depth of reveal. The courtyard, bounded by these rough materials, is a picture of grim medievalism. Overhanging roofs supported by huge brown timbers cast gloomy shadows. Inside the castle, rudeness has yielded but slightly to the needs of livable *stuben*. The felling of trees was easier than the dressing of stone, and doubtless on that account all the interior finish is of wood. The rude decorations which early craftsmen have left upon post, wainscoting and ceiling-beam are distinctly wood motives not unlike the timber enrichments of the Scandinavians.

A balcony and stair in the courtyard of Schloss Anger near Klausen show the heavy parts and ponderous proportions of Tyrolese detail. Unstudied and undesigned by any architect these features were probably "just built," as we say of curious remains here at home whose origins are vague. To untaught

mountain workmen must be credited a beauty—rude as it may be—which many of the buildings of this Austrian province undoubtedly have. The severely Gothic is blended with southern feeling in Castle Campan at Kaltern, farther down the valley south of

fashion of the Tyrolese. But the castle as a whole has an Italian mien; and in the finish of its interior, the larger apartments are pretentious examples of southern styles. Even the humbler rooms indicate by the paneling of ceilings and a certain



AT SCHLOSS ANGER

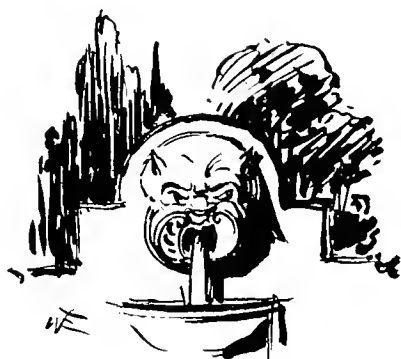


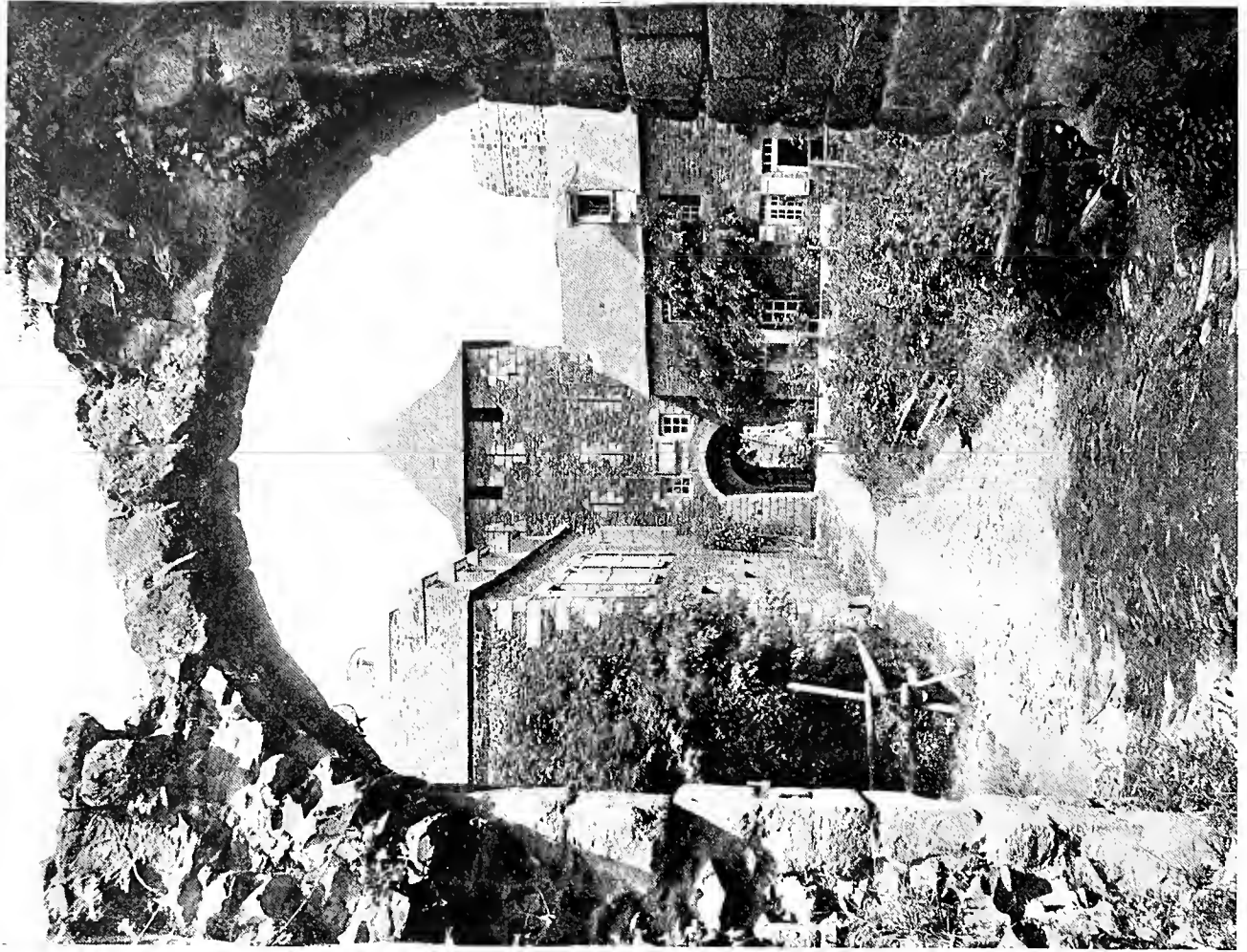
CASTLE FRIEDBERG

Botzen. Nearly square in plan it is covered with a single hipped roof, above the corners of which extend the pyramidal roofs of bays. These high slender bays or *erker* are rectangular in plan and are attached diagonally to the corners of the building in the true

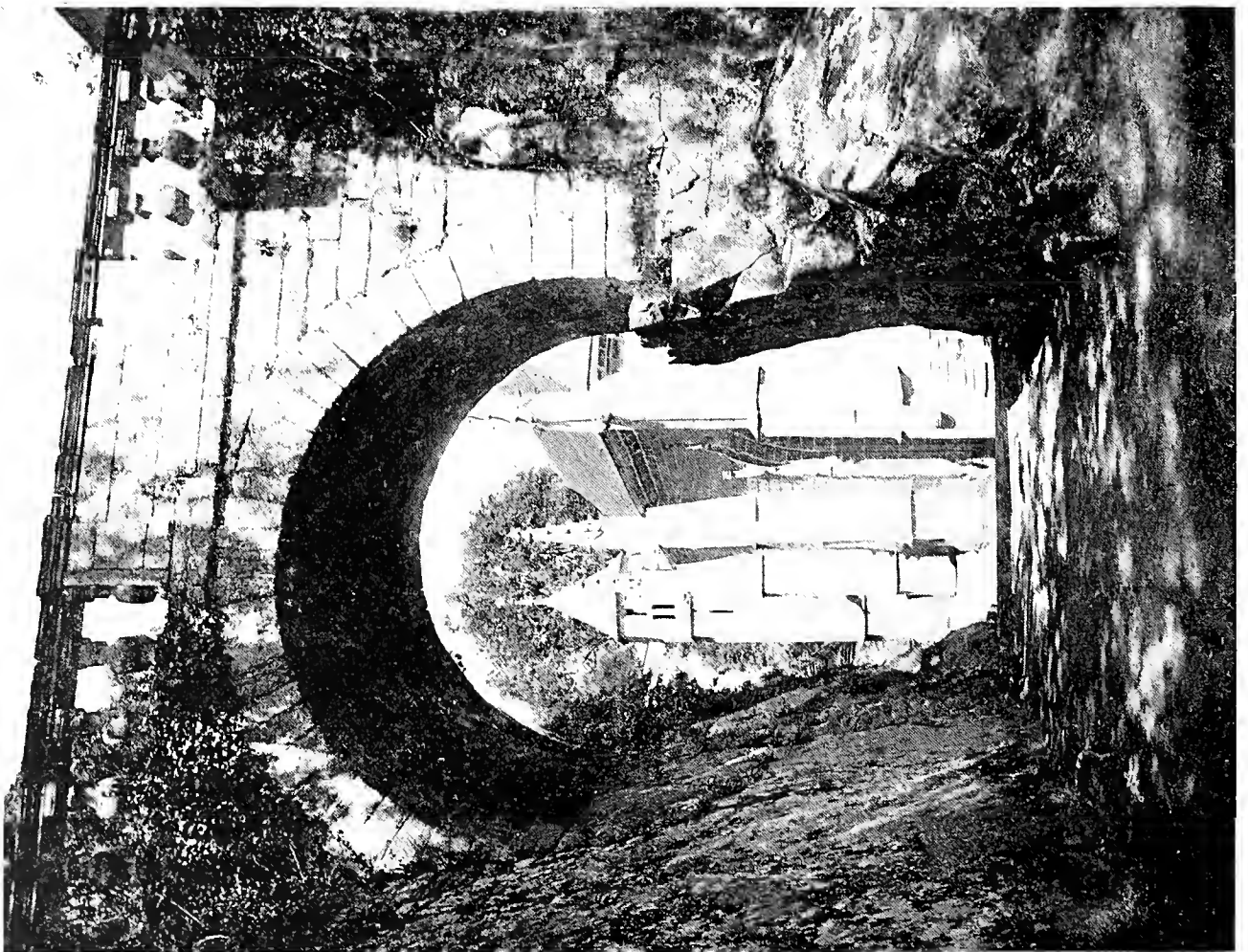
symmetry in the wood detail a coming change. As we shall see in a future paper these modifications become farther south at Trent not ill-suited to the heart of Italy itself.

Herbert C. Wise.

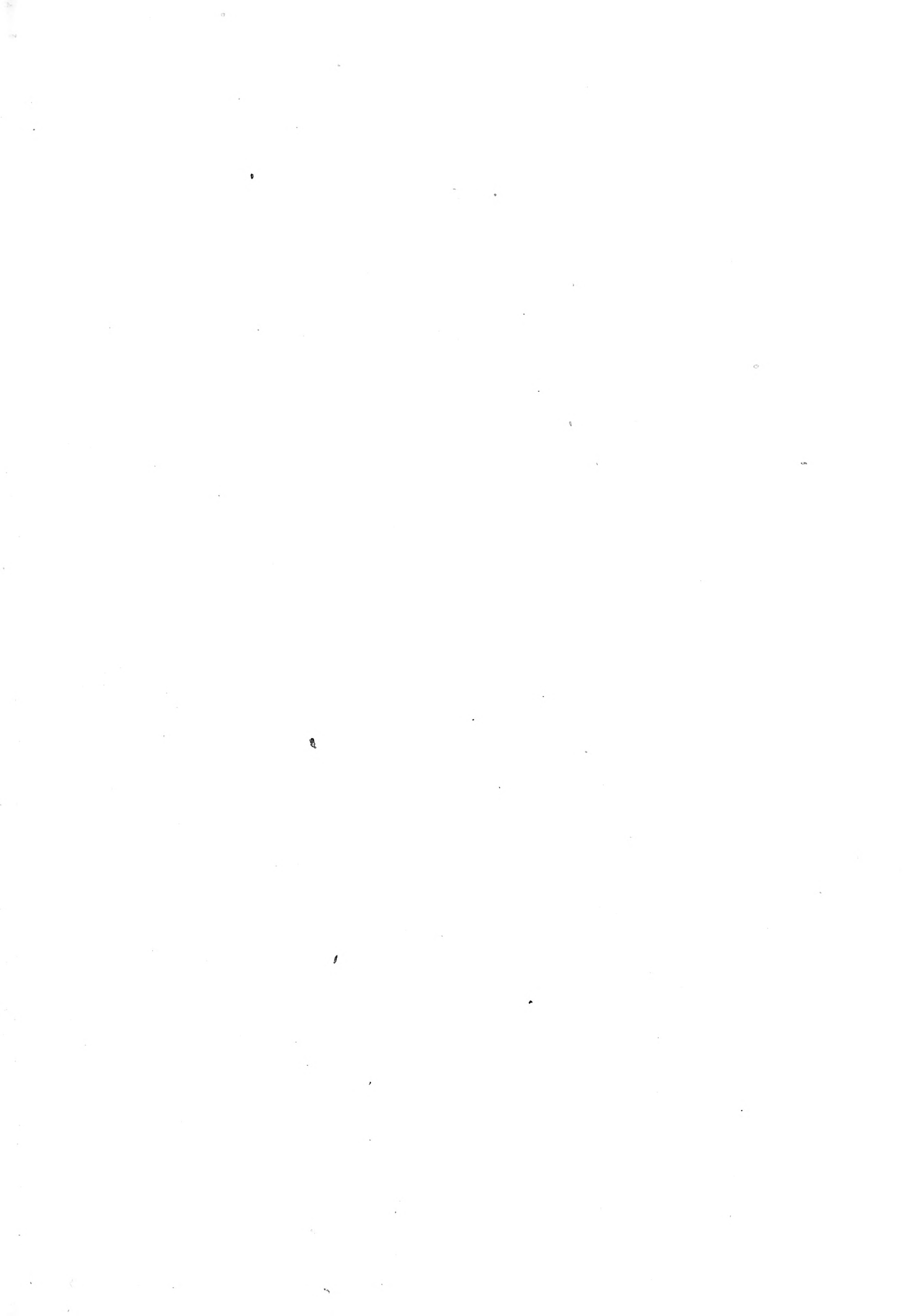




INTERIOR COURT, CHÂTEAU DE FOUGÈRES



CHAPELLE STE.-BARBE, LA FAOUE, NEAR QUIMPERLÉ





THE COURT OF THE MISSION BUILDING

THE MISSION BUILDING.

AT THE PAN-AMERICAN EXPOSITION.

George Cary, Architect.

THE PHOTOGRAPHIC COMPETITION.

THE Mission Building is clear in the memory of all who visited the Pan-American Exposition at Buffalo last year. Close as it stood to the hodgepodge of a modern show,—where many objects each strive to be more conspicuous than the other and all clamor for attention,—its serene beauty was the more impressive; its character was the more distinct. The architecture was a different one from ours of to-day. It recalled that early and poetic life of the far southwest, that existence of religious devotion and rural industry which was begun with brave self-sacrifice and doomed to a pathetic decline. The contrast between this simple structure and the gay forms of the exposition could not have been more complete if Father Junipero himself and his beloved Indians had suddenly appeared and escorted us to one of the arched entrances.

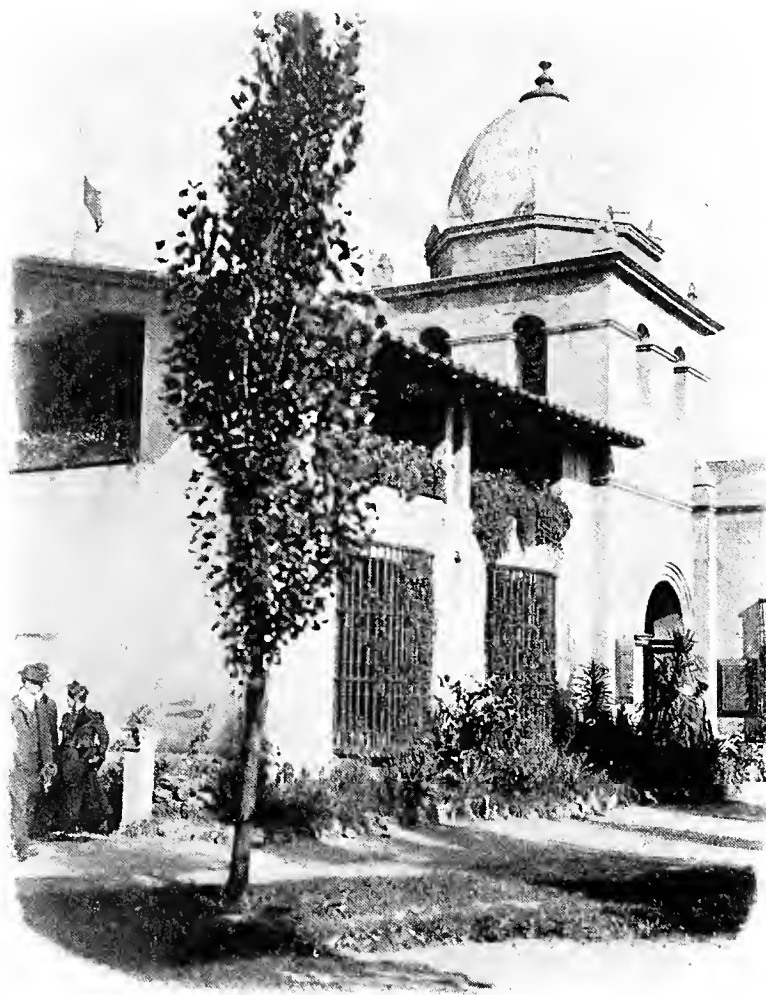
It was near the northeastern angle of the canal that the light plastered walls appeared behind a screen of Lombardy poplars planted on the water's edge. Above deep shadows of overhanging roofs rose a low tower covered with blue glazed tiles that shone in the summer sun. Vines and bright flowers streamed over the parapets of loggias and pressed through the iron grilles of windows. Throngs

of sightseers made their way into gardens and courts and found there refreshment and delight. Resting on benches between a circle of cedar trees in the centre of the courtyard, they watched the splashing water from Mr. Bitter's bronze fountain set within four columns brought from Spain. Timbers, covered with vines, formed an open roof above the old marble shafts and were a favorite promenade of several important occupants of the building—the white cockatoos. A few Mexican

macaws sent their scoldings resounding from wall to wall and through the arcades. Vines were trained upon every place of support, and potted plants were set about on the courtyard pavement over whose bricks may have slipped the sandalled feet of pious friars.

How did an echo of a hundred years ago come to be given tangible form; and how could a relic of monastic life in America lend itself to a modern and legitimate end? In the California missions Indians were led in the teachings of

Christianity and in the arts of civilization. Tilling of the soil, weaving, painting, hewing timbers, and building bridges and roads filled the hours between the ringing of the Angelus and were a part of the daily round. And when three firms resolved to construct a building suitable for displaying their wares at the Pan-American Exposition, a mission building was soon decided upon, as it would have—were it faithful to its prototype—natural divisions appropriate to three kinds



Negative by "Yampah"

THE WORKSHOP AND TOWER

of products. The firms were the M. H. Birge and Sons Company, makers of wall papers, The Buffalo Pitts Company, makers of agricultural implements and Messrs. J. & R. Lamb, makers of stained glass and ecclesiastical furnishings. In the cloisters was placed machinery that would accomplish in a day the task of the mission laborer's months. The workshop contained a miniature of a wall paper manufactory. In the chapel stained glass windows and church furnishings—modern as they were—completed the last feature of the rural establishment, the part which was of first importance to the Mexican Jesuits and Franciscans.

The northern gateway leading to the centre of the court was the one most used by Exposition visitors. It led directly to the quiet precincts of the rectangular courtyard. Arcades formed two sides of this space and in one of the arches directly before the entrance was a wall fountain where the cockatoos often disported themselves. Farther to the left three arches led to an inner court surrounded by a garden where, in original examples, would have been ranged the apartments of the friars, the workshops and school-rooms. Turning to the right one passed by the tower into the workshop. In Exposition days a crowd of interested visitors here watched the progress of wall paper designs from artists' cartoons to the finished product ready for the walls. Boys spreading color

on the lever of a huge press was a picturesque—almost primitive—scene.

Going farther and through the workshop one reached the chapel, in reality a western extension of the building. It could also be



Negative by "Yampah"

THE NORTHERN GATEWAY



Negative by "Norwood"

ENTRANCE TO THE WORKSHOP

on a cloth pad, the printer dipping into the color a large wood block on which the design was engraved, and then printing it by stepping

entered by doors upon the north side towards the Stadium of the Exposition Grounds, and from the south or Canal side; for the Mission Building was well supplied with entrances. There were six in all. Simpler architecture was now left behind, and all within a small area were rows of columns along the walls and decorated beams thrown above from side to side. For an appropriate interior scheme early Christian forms had been taken by Mr. Charles R. Lamb because of their close historic precedence to Spanish work. They were elaborated with all the imagery of Byzantine ornament. A large stained glass window, designed by Mr. Frederick S. Lamb, occupied the centre of the western wall over the altar, and on each side of it were mural decorations by the same artist representing "The Church" and "The State." How-

ever far this highly wrought chapel had departed from the simplicity of struggling religious establishments of the Mexican pioneers, and however overcrowded the small cell may have seemed, all its parts led to consummate richness. The beautiful tones of marbles and mosaic, wrought wood and metals,—all combined with color where color could be added,—and tempered by a soft diffused light, bade silence to the visitors who eagerly crossed the threshold.

With somewhat less freedom of outline than is seen in many of the Southern California missions the architect had succeeded with fair success in reproducing at Buffalo the character of the old buildings. But a small space was available of the valuable area within the Exposition limits: conditions altogether different from the wide horizons of the West. There great arcaded courts and long ambulatories spread out upon the plains, and the spaces they enclosed were nothing less than fields. At Buffalo condensation was necessary, and it was skilfully done. The tower recalled the beautiful little belfry of the Mission of San Carlos, and the unbroken wall surfaces, the heavy proportions of arcades and

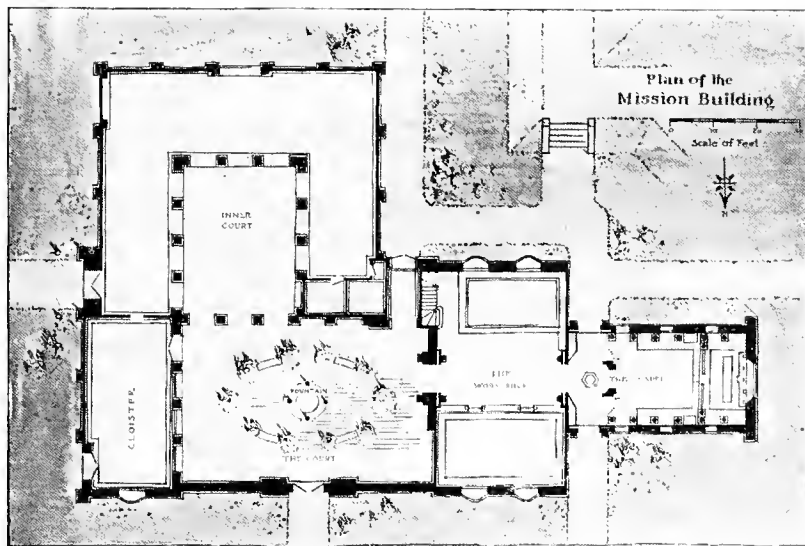
roofs were true to every example remaining in the west. That these characteristics, as indigenous to our soil as any structures ever reared here, should be happily reproduced and put to service at an exposition of all

America was a fortunate thought to be credited to the Mission Building's prime movers.

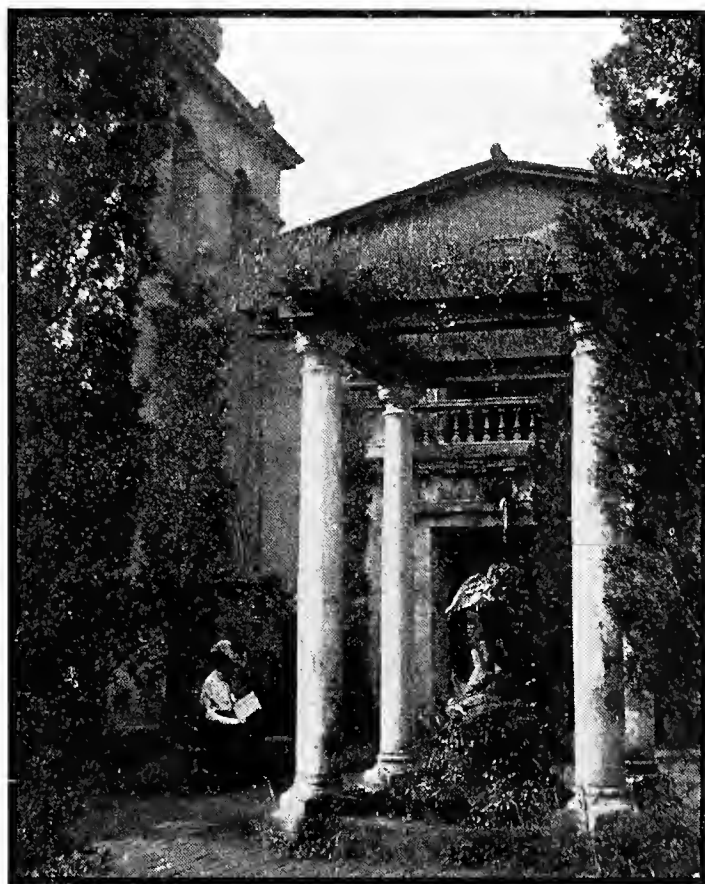
An announcement was made by the M. H. Birge & Sons Company and Messrs. J. & R. Lamb that a series of prizes would be given by them for the best photographs and sketches which may be

made of the Mission Building during the period of the Exposition. Decision was to be rendered by a jury composed of the archi-

tect of the building, Director of Fine Arts of the Exposition, Mr. William A. Coffin, Director of Color, Mr. C. Y. Turner, Mr. George K. Birge and Mr. Charles R. Lamb. Every facility for drawing and photographing was given by the proprietors of the building to those intending to compete. Unfortunately, however, the rules of the Exposition had rigidly excluded tripod cameras from use in the grounds. Only 4" x 5" hand cameras or smaller ones had been permitted, and to that size the photographs of the competition were limited.



THE PLAN OF THE MISSION BUILDING



Negative by "Norwood"

THE FOUNTAIN



Negative by "Yampah"



Negative by "Belfry"

ARCADES

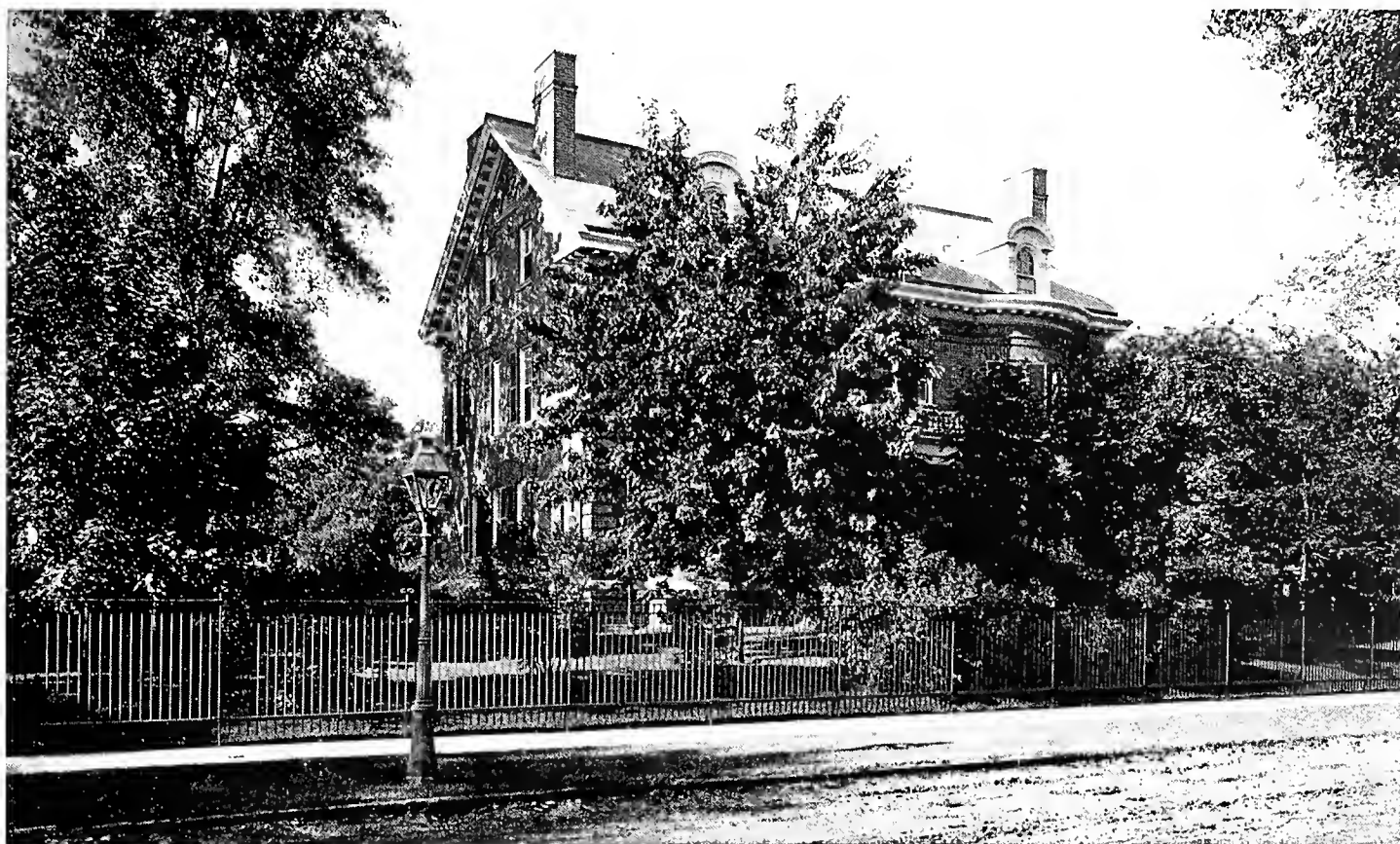
All pictures were to be entered under a *nom de plume*, together with a sealed blank envelope which should contain the name and address of the several authors. Awards in the competition have just been made, and we have been permitted by the courtesy of Mr. Birge and Mr. Lamb to reproduce some of the more interesting of the successful photographs. Irregular focusing, which gave a softness to the views, and a method of printing from the negatives to obtain an artistic



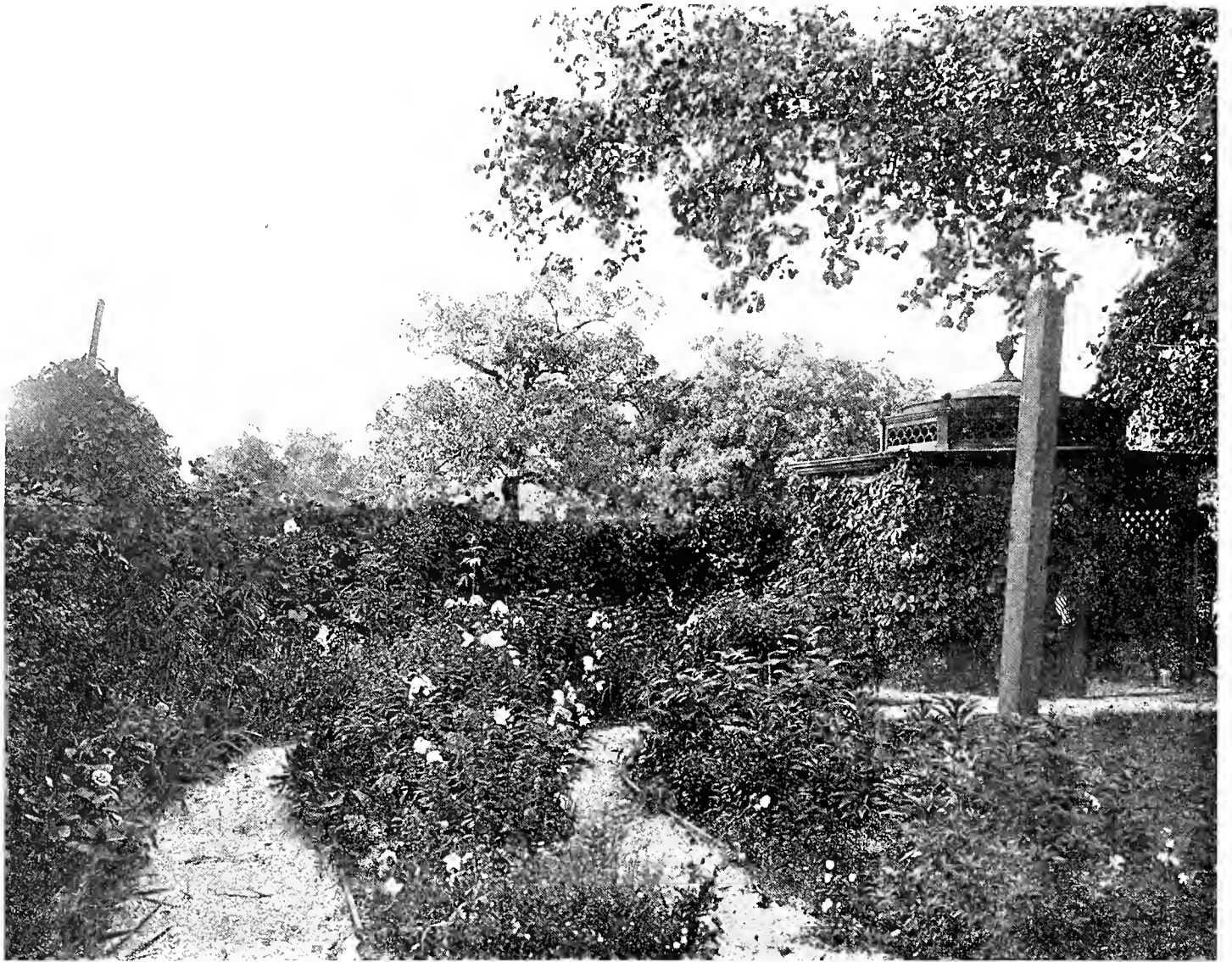
texture counted in the choice made for the first prize. Nor was the taste shown in the attractive mounting of the prints without its weight. The set of pictures bearing the *nom de plume* "Yampah" was given first place, and received the prize of twenty-five dollars. Those bearing a pen sketch of a mission belfry were ranked second, and the set marked "Norwood" was placed third. These received prizes of fifteen and ten dollars respectively.



Negatives by "Yampah"



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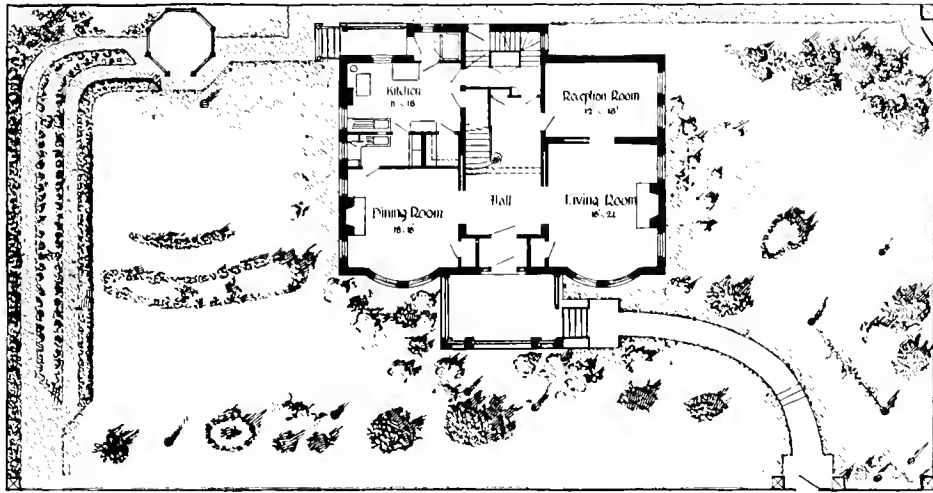
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A RESIDENCE,
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MADISON AVENUE
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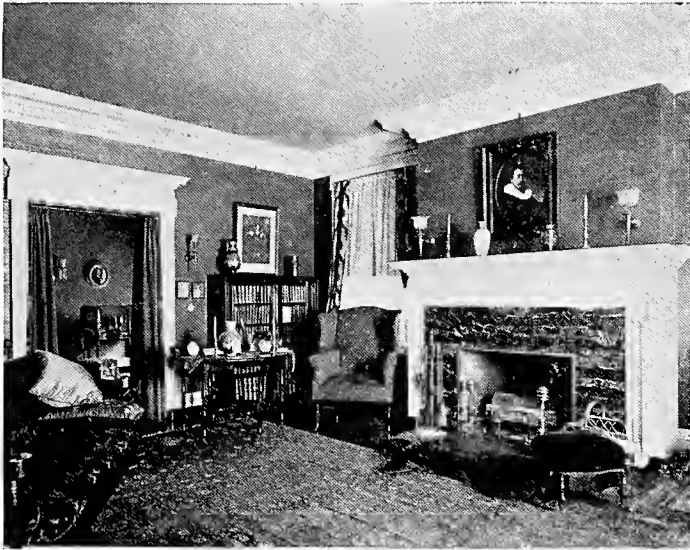


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The selection of an architect for the proposed new building ends another period in the history of the Pennsylvania State Capitol. The decision is neither a satisfaction nor a surprise. It could not have been otherwise in the face of events occurring since the old building was destroyed by fire five years ago. To say that all efforts to obtain a design for a new building have been marked by incompetence and ignorance, is to use charitable terms. Every move on the part of the authorities at Harrisburg has been insincere, and has revealed no less a contempt for the sane advice of professional architects than an indifference to their art. Attacks were made by architectural societies against the first competition held in 1898. The changes urged for the program were just demands. If they had been recognized architects could have offered their services with self-respect. But these voices were ignored by the Pennsylvania politicians ; and the honest aspect of the competition disappearing, the T-Square Club and the local chapters of the American Institute of Architects declared it unprofessional for any architect to enter the competition.

The mistakes of four years ago were easy to avoid repeating when last July four million dollars was appropriated for a new Capitol building. The sum was ample and a knowledge of the proper conduct of an architectural competition could not have been wanting. But these availed nothing toward

honesty and straightforwardness in obtaining suitable designs. No program was given out, only an advertising notice in a few newspapers. There was no authoritative source of information insuring equal data to all competitors, nor was there any assurance that the architect of the best design would be chosen the architect of the building. No jury of professional knowledge was to give the decision, and only two weeks before the competition closed was it announced that Prof. William R. Ware would be the Commission's adviser. The competition closed on November 30th and there were but eight designs submitted. Thus an event which should have called forth a general response from architects was so maladministered as to meet with indifference and disdain. Since political jobbery had been certified at the outset protests against the Commission's perfunctory forms were mild and casual. The matter is now closed and ground is soon to be broken for the new building.

The great fault of such mismanagement is that it invites not skill but incapacity. The taint of ill-faith in the terms of the proceedings has certainly deprived society of the best thought of one of its organic parts—a profession pledged to the improvement of common objects and the esthetic advancement of our lives. An ignoring of the function and capacity of such a profession is an indifference to public welfare. The limiting of competitions is at best a shutting out of much individual ability ; but the expense of paying many competitors makes it necessary. When a public work is to be executed the same obstacle may arise but in a less formidable shape. At all events it is inexcusable that the overtures of authorities should have no semblance of fairness, should be such that no conscientious architect could honestly answer to them. Architects have framed programs for competitions ideally just to themselves and to others and they have tried to have them generally recognized. Though their plea was vain at Harrisburg, it is to be hoped that competitions in the future may be *real* competitions ; that they shall attract the sum total of special ability existing whenever they take place.



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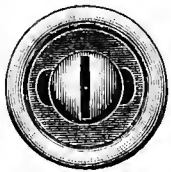
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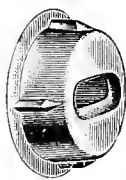
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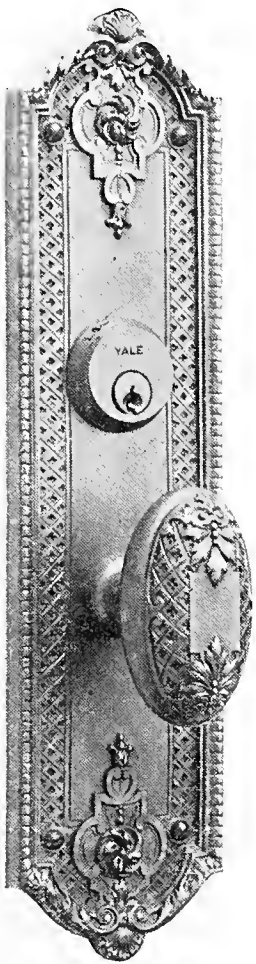
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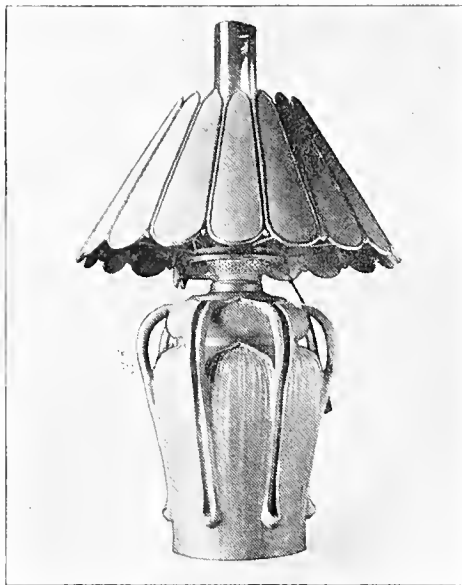
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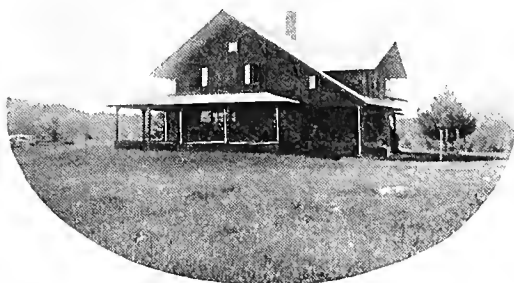
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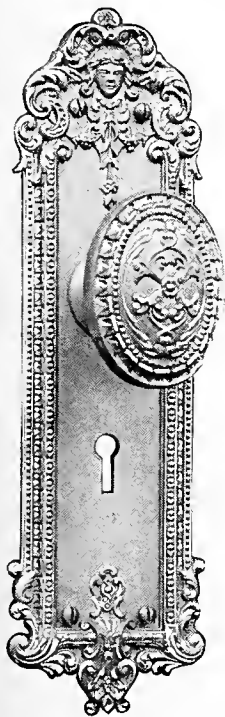
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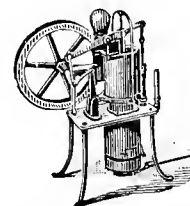
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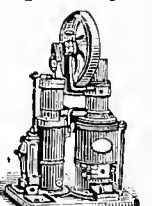
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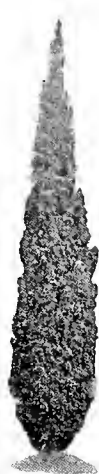
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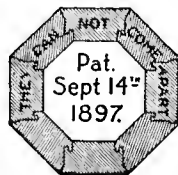
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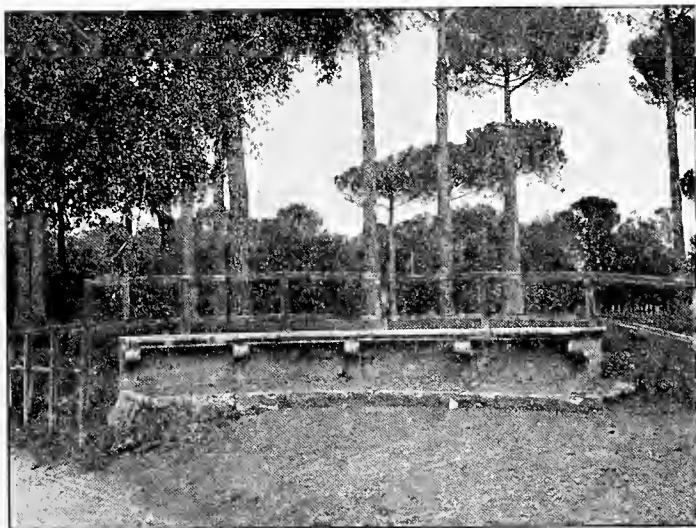
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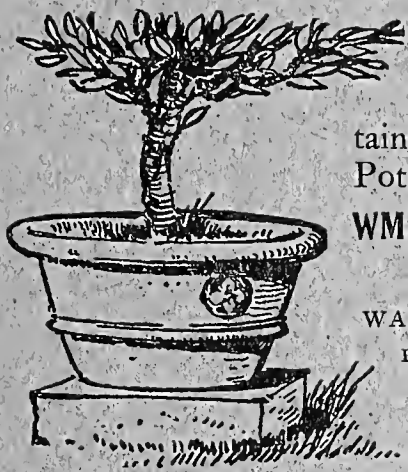
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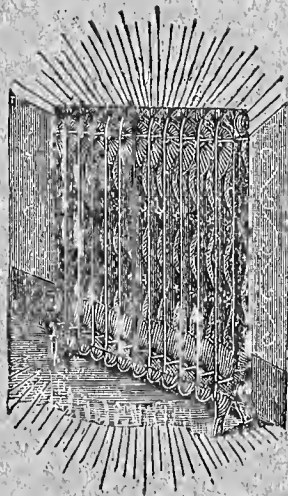


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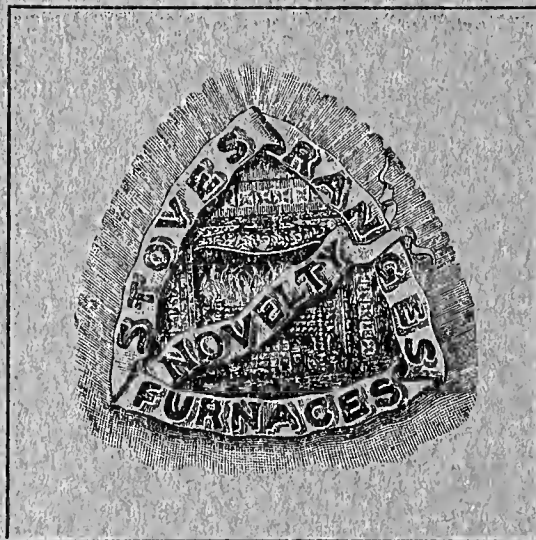
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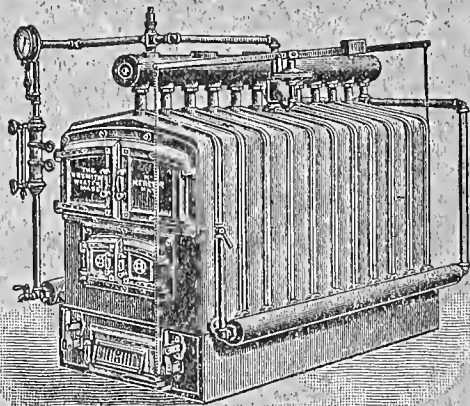
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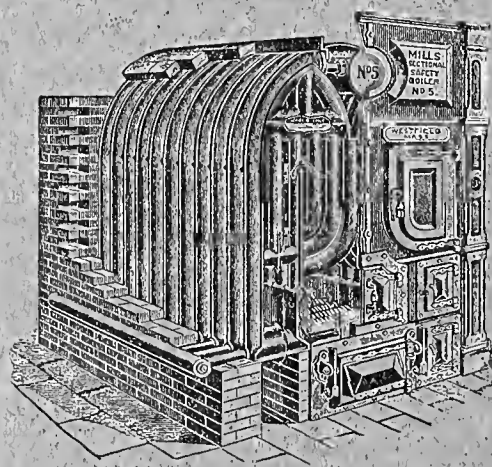
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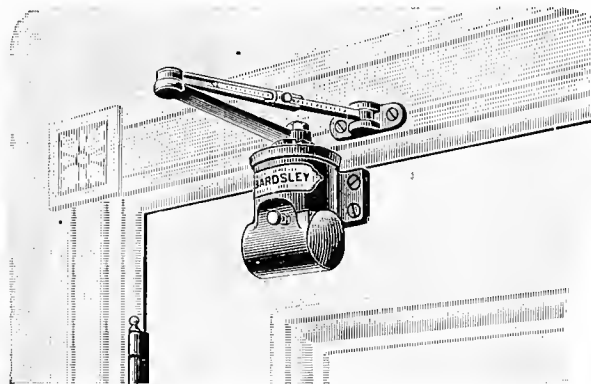
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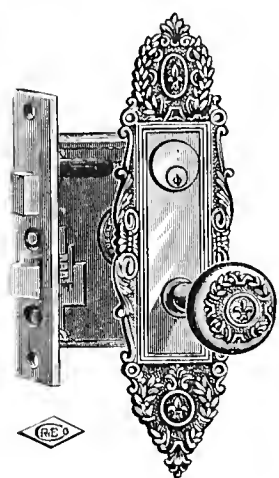
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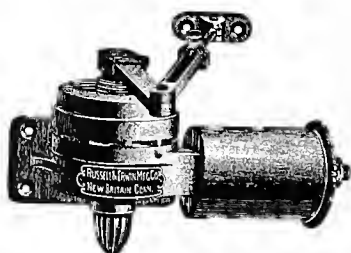
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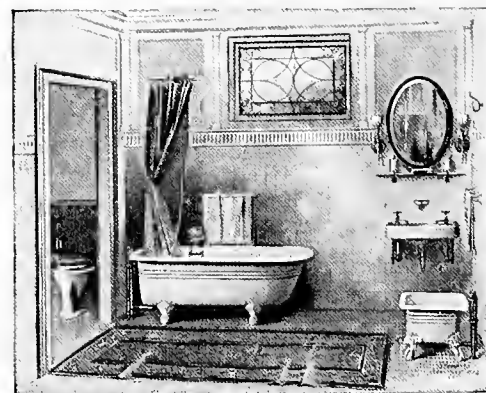
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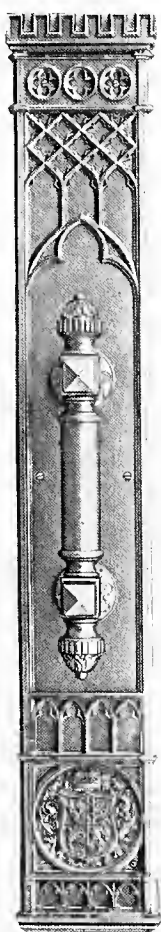
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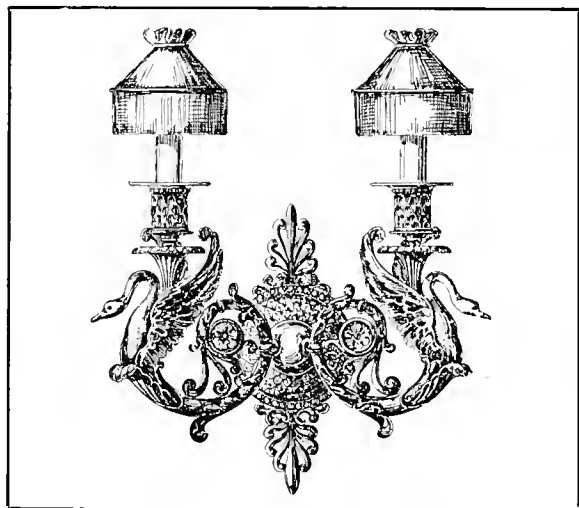
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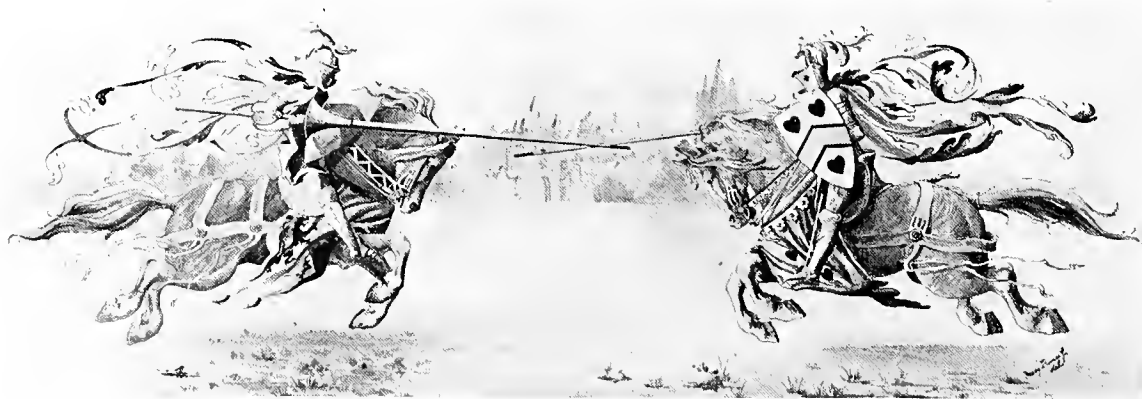
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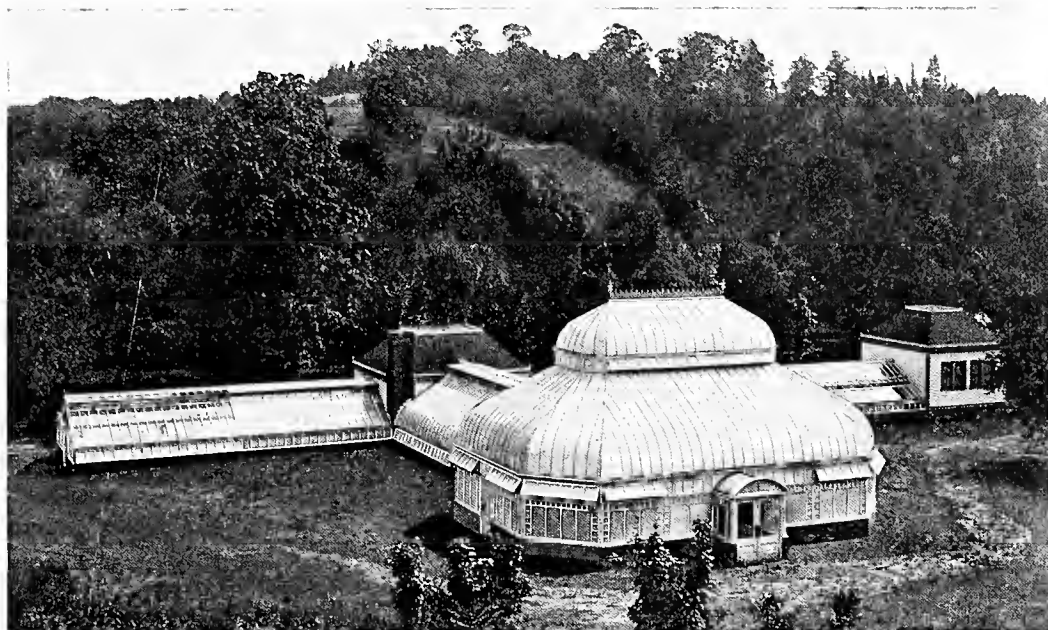
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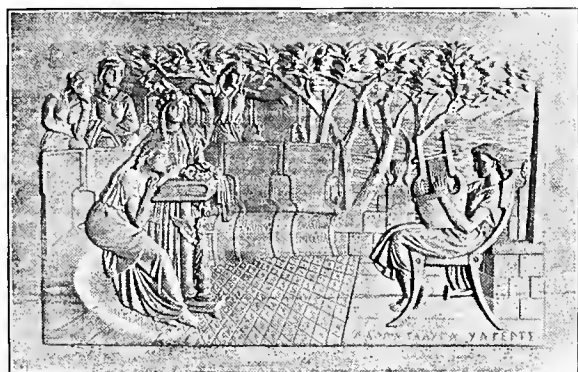
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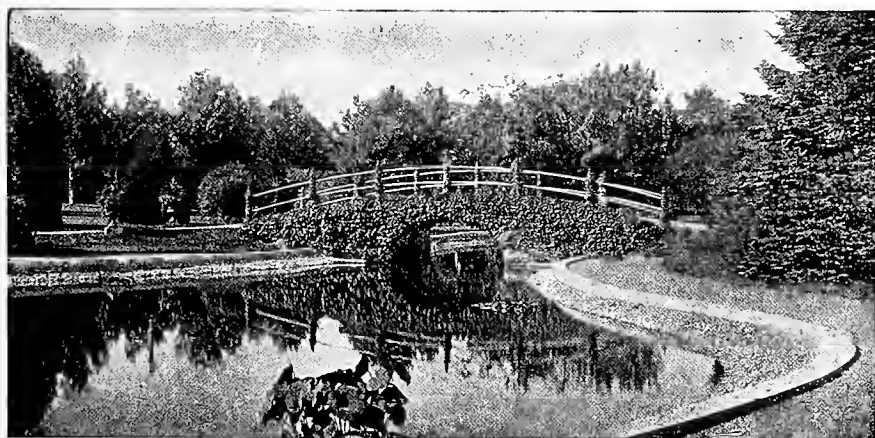


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Contents for February

	PAGE
THE TWENTIETH CENTURY WASHINGTON, as proposed by the Park Commission of Daniel H. Burnham, Frederick Law Olmsted, Jr., Charles F. McKim, and Augustus St. Gaudens. By GLENN BROWN. <i>Illustrated,</i>	39
TOPIARY WORK AT THE VILLA BUFALINI, S. GIUSTINO, ITALY. <i>Illustration facing,</i>	57
"FROZEN MUSIC," by CLAUDE BRAGDON. <i>Illustrated by the Author,</i>	57
BYWAYS OF ENGLAND. <i>Illustrations,</i>	62
BELLEFONTAINE (<i>Part II</i>), AT LENOX, MASSACHUSETTS, Designed by Carrère & Hastings, Architects. <i>Illustrated,</i>	64
A HOUSE AT BERNARDSVILLE, NEW JERSEY, Designed by Lord, Hewlett & Hull, Architects. <i>Illustrated,</i>	72
EDITORIAL.	76



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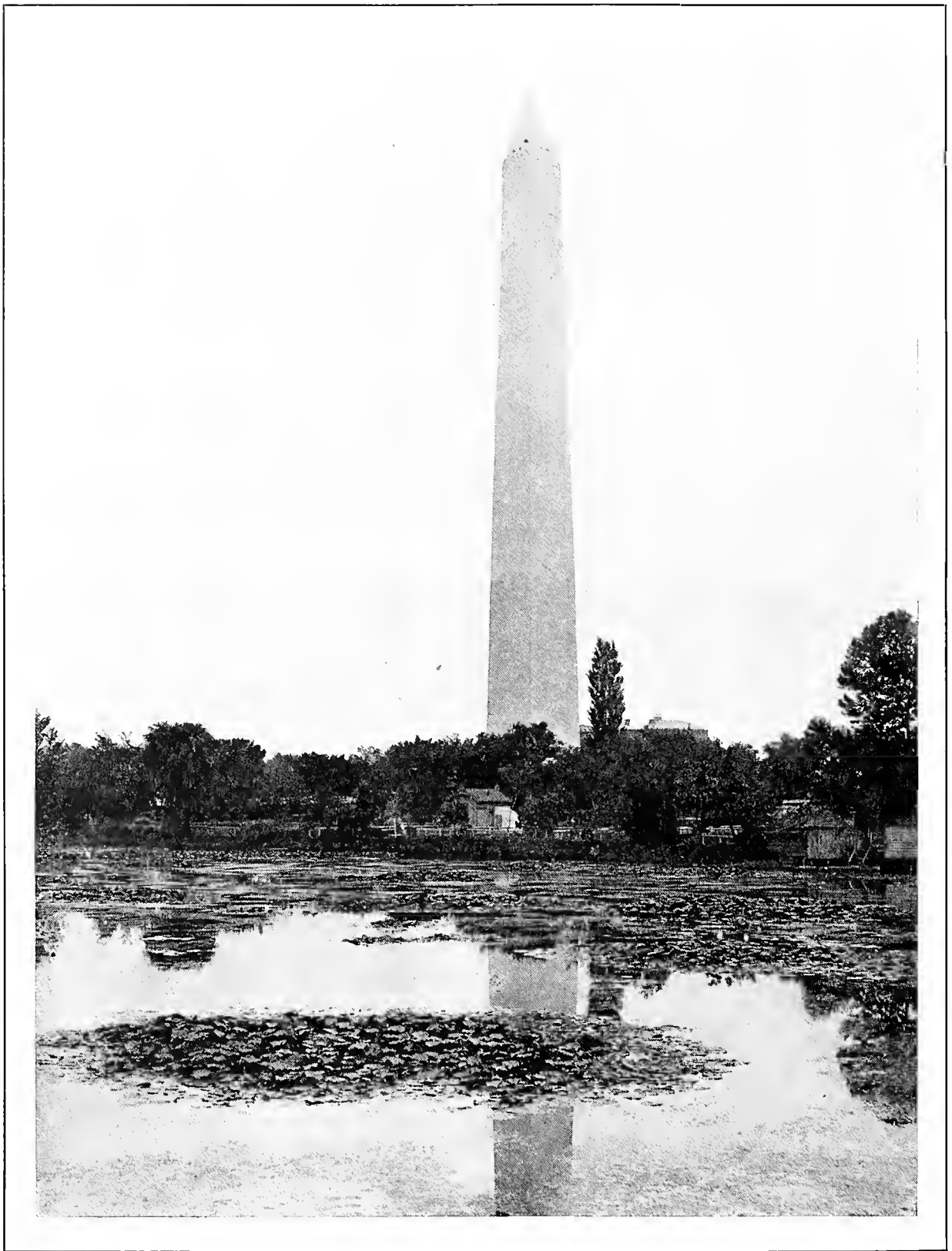
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THE WASHINGTON MONUMENT

Showing its present surroundings

House & Garden

Vol. II

FEBRUARY, 1902

No. 2

THE TWENTIETH CENTURY WASHINGTON

AS PROPOSED BY THE PARK COMMISSION OF

DANIEL H. BURNHAM

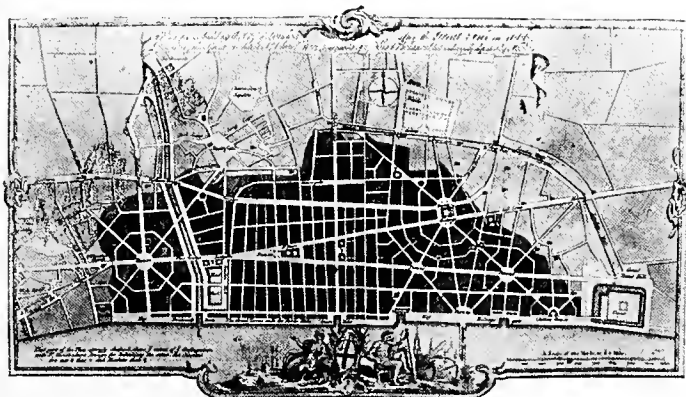
FREDERICK LAW OLNSTED, JR.

CHARLES F. McKIM

AUGUSTUS ST. GAUDENS

THAT the City of Washington may take equal rank with the monumental capitals of the world is made possible by the work of the Park Commission appointed about a year ago by the Senate Committee on the District of Columbia. An extensive plan for the city has been prepared, incorporating the chief existing landmarks into one harmonious scheme to which future buildings may add a beauty of completeness. The proposed ambitious improvements constitute a development of the original plan of the city and they aim to recover the salient features of that arrangement. When a site by the Potomac River was selected in 1790 for the capital city of the United States, it was the first instance of an entire city's being *designed*. The ground was free and without hampering conditions to control the direction or character of the future streets or the location of the buildings. To design a map of the new city, President Washington was fortunate in securing Peter Charles L'Enfant, a young French engineer officer who had done efficient service during the Revolution in designing fortifications, and had gained quite a reputation in Philadelphia and New York as an engineer and architect. The extreme novelty of the plan he produced makes the sources of his inspiration a matter

of great interest. He had requested the plans of many European cities of Thomas Jefferson, then Secretary of State, but a review of the arrangement of these cities shows few suggestions of which he actually made use. The Champs-Élysées, for the Mall, was the only probable one, for it must be remembered that the radiating streets in Paris were opened by the first and third Napoleons years after the map of L'Enfant was drawn.



SIR CHRISTOPHER WREN'S PLAN OF LONDON
(Never Executed)

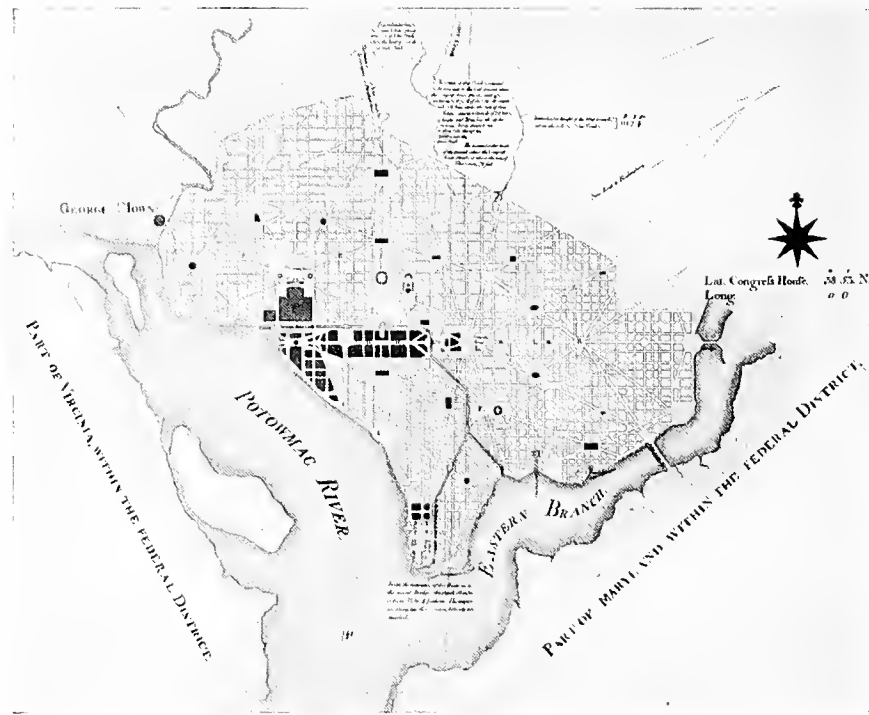
The only map of a city having focal points of interest and streets and avenues radiating from them to which L'Enfant could possibly have had access was that of Sir Christopher Wren for the rebuilding of London after the great fire of 1666. The same principle had

been used with dignified effect by Le Nôtre in his gardens. Whether Wren, who visited France in 1665, was inspired to adopt the radial system after a study of the gardens in that country; whether L'Enfant from a knowledge of their beautiful effects was tempted to utilize the system for a city; or whether he was influenced in his work by a recollection of the gardens and a sight of Wren's plan in the adoption of focal points of interest as centers for radial streets must remain more or less a matter of conjecture. It is a curious fact that while there was no city with radial streets in Europe at that period

one existed in America at Annapolis. That town was based upon Sir Christopher Wren's plan of London. Washington and L'Enfant made a careful study of the site for the new city and selected the locations for the principal buildings, monuments and statuary. The plan was submitted to Washington, modified by him, and finally approved. It is remarkable for the landscape it provided for the principal buildings, affording efficient approaches to them and pleasing garden views before their main façades. The opportunities for vistas from one point of importance to another are numerous, and are well and carefully studied. When we remember that this country had then but a population of 4,600,000 and that the Capital City was laid out commensurate with a population of 800,000—the size of London in 1790—we may wonder at the breadth of mind and courage of our city makers, and we may thank them for withstanding

the ridicule of the timid and the sneers of the incredulous.

The streets were laid out as designed, radiating from centers, with circular parks at their intersections and the Capitol and White House were located on the sites selected for them. After Madison's administration, the idea of the founders was apparently forgotten or ignored. The noble approach to the Capitol and the imposing vista planned from the Mall were destroyed by careless plant-



L'ENFANT'S PLAN OF WASHINGTON
(Made in 1791)

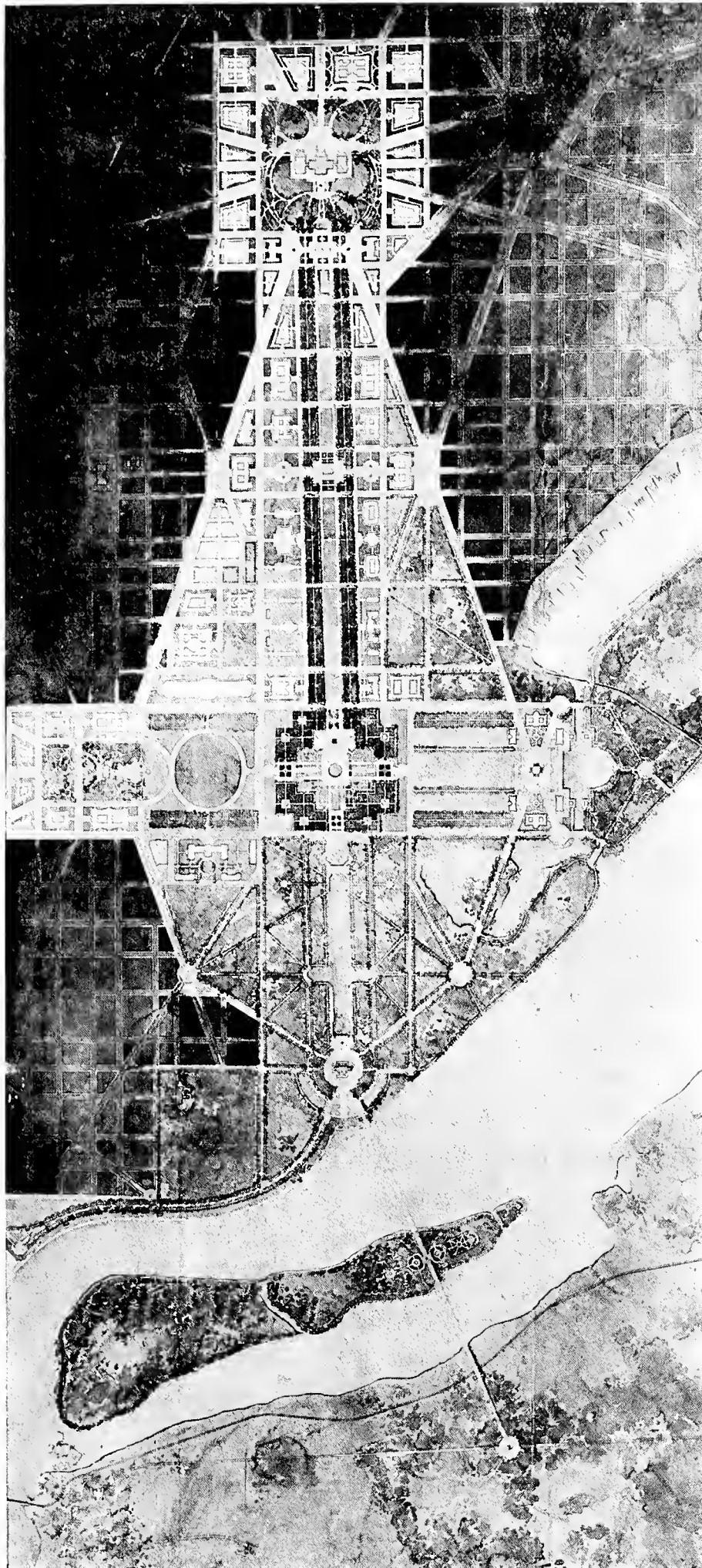
ing; public buildings were built haphazard, here and there, with no idea of an ordered or harmonious grouping. This neglect of L'Enfant's plan has continued to the present day. The view from the Monument to the Capitol is over a tangle of trees and past a jumble of buildings unrelated to one another and each marring the other's effect. Looking from the Capitol are the unsightly Botanical Gardens in the foreground, then the tracks of a railway and again a confusion of trees without system



A VIEW OF THE CAPITOL
showing how a vista has been marred by the unfortunate placing of the
new Congressional Library



A VIEW OF THE PRESENT MALL
showing the unsightly rear of buildings
which face upon it



UNION THE CAPITOL
SQUARE

THE MALL

THE WHITE HOUSE
THE MONUMENT
AND GARDEN
WASHINGTON
COMMON
MEMORIAL
TO THE MAKERS
OF THE
CONSTITUTION

THE CANAL

THE LINCOLN
MEMORIAL

THE MEMORIAL
BRIDGE

ARLINGTON

THE NEW GENERAL PLAN OF WASHINGTON PREPARED BY THE PARK COMMISSION



BIRD'S EYE VIEW OF THE NEW GENERAL PLAN
Taken from a point 4,000 feet above Arlington

*From a drawing rendered
by F. L. V. Hoppin*

or design. The creation of grand vistas was the fundamental, unique and distinctive feature of the first plan; and the ruthless destruction of them in latter times is the more amazing when we remember that the plan of L'Enfant has been continuously in the possession of the Government authorities.

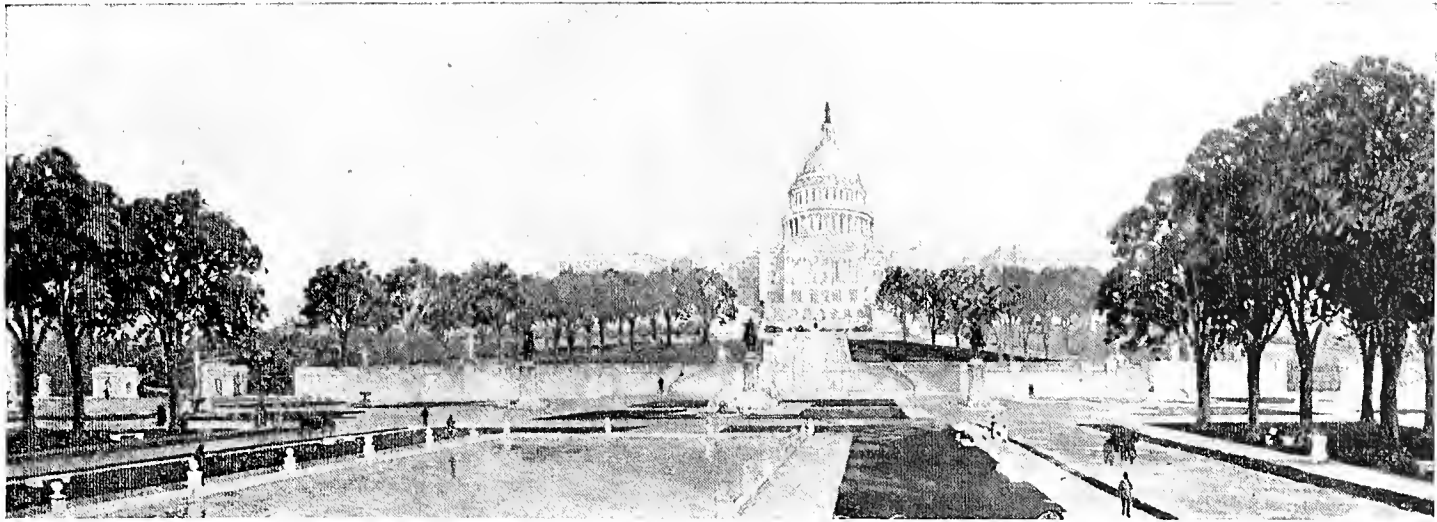


A BULFINCH GATEHOUSE
Removed from Capitol Grounds in 1876 and located at present on the Monument Lot

In the preparation of "A History of the United States Capitol," my attention was first called to the beauties of L'Enfant's plan, and I wrote an article strongly urging a return to the scheme in locating future Government buildings. In December of 1900 The American Institute of Architects had for



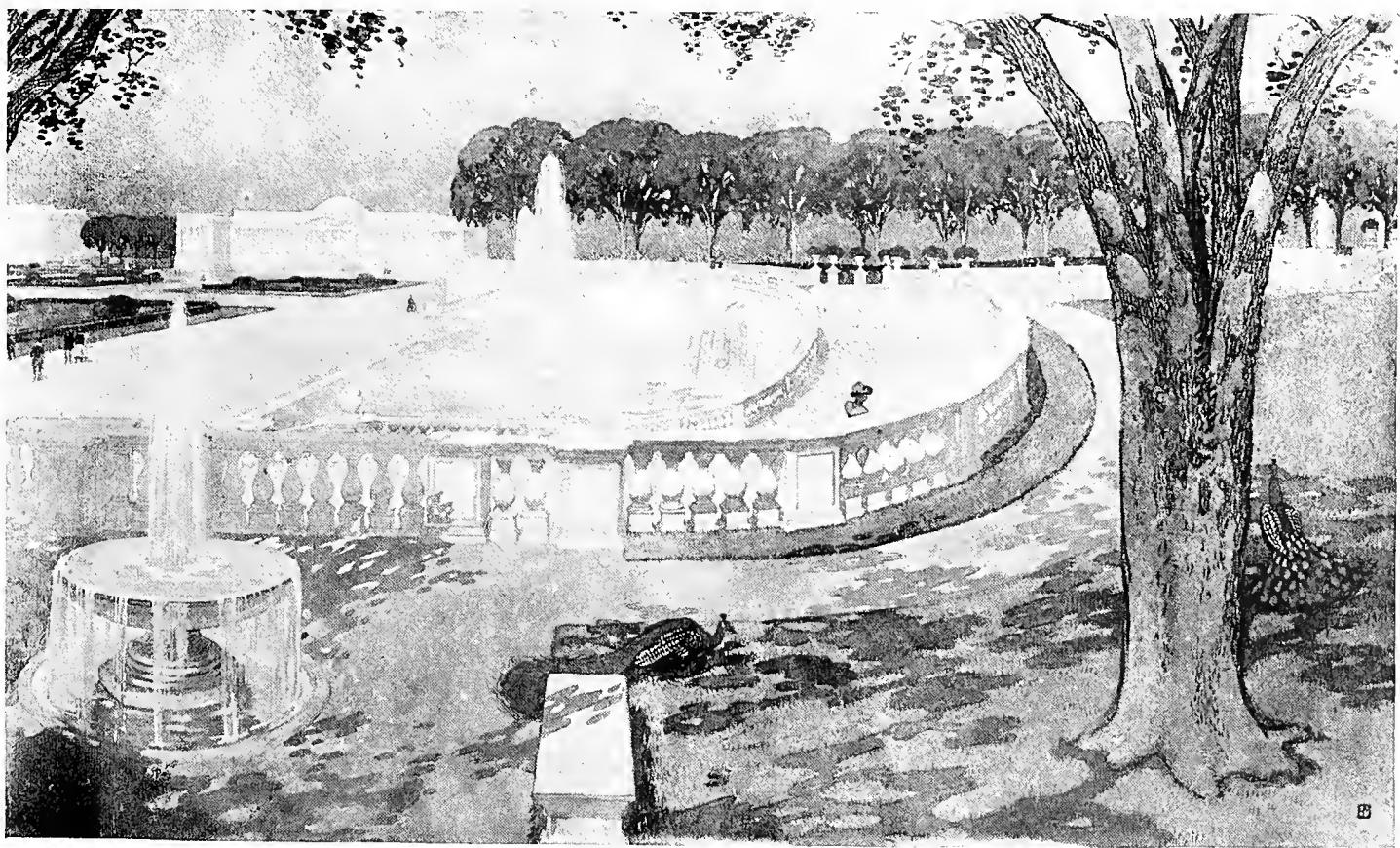
THE NEW WEST APPROACH TO THE CAPITOL
Showing proposed terrace, restoration of the Bulfinch gates and boundary fence, fountains and cascades



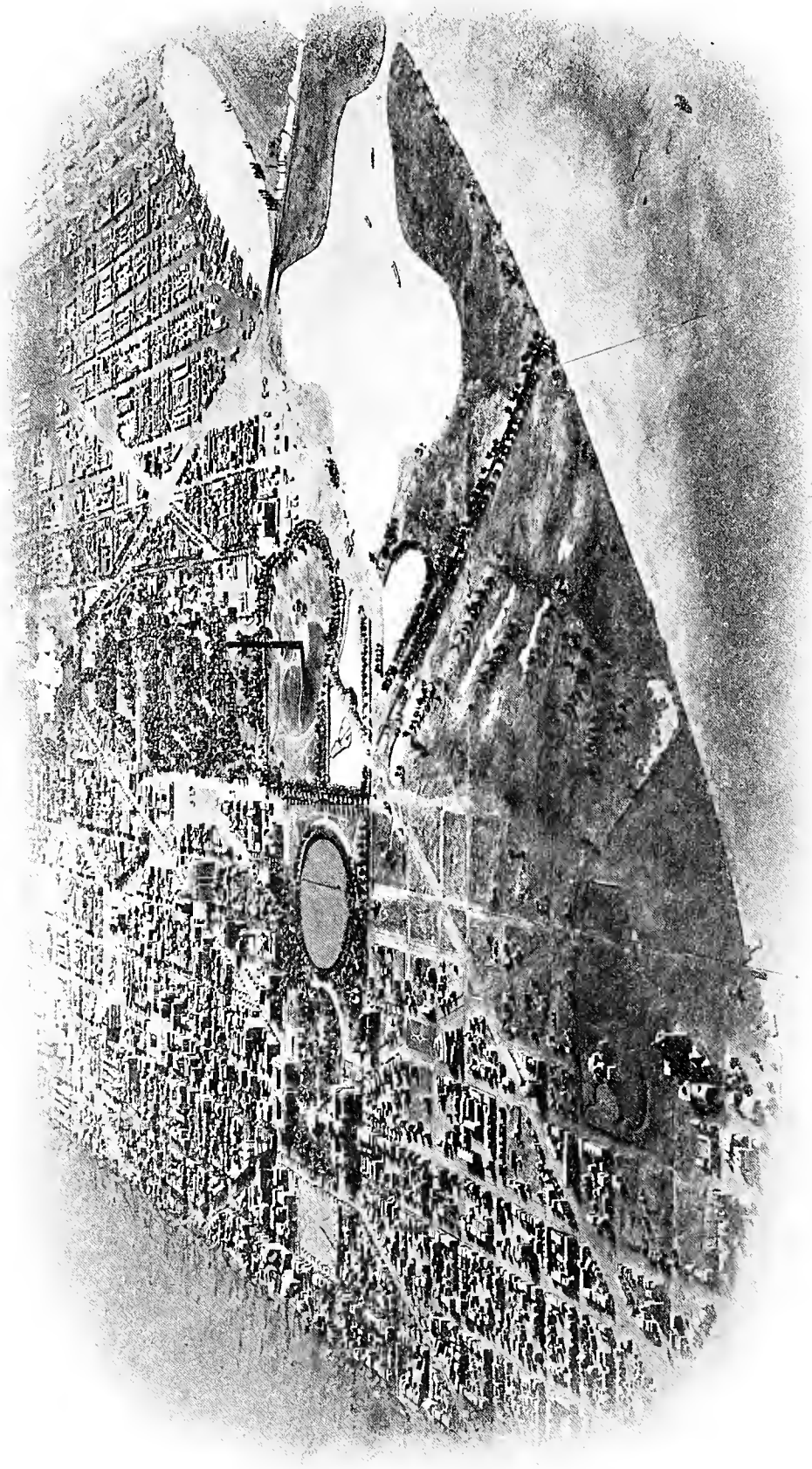
PERSPECTIVE VIEW OF CAPITOL FROM THE NEW UNION SQUARE

their principal topic of discussion the future grouping of structures and the park treatment of Washington City. Many bright men of the profession prepared papers on the subject, and all agreed that the fundamental lines established by L'Enfant should be adhered to. At this meeting a committee was appointed to urge upon Congress the pressing need of appointing a Commission to formulate a scheme for future grouping of buildings and a treatment of the parks in

harmony with the architecture. Senator McMillan, with a broad foresight of the necessity of such study, and a keen appreciation of the fact that only the best men should be selected for the duties of the Commission, acted upon the suggestion of the Institute and appointed Mr. Daniel H. Burnham, and Mr. F. L. Olmsted, Jr., giving them the power to select a third man, who it was well known would be Mr. Charles F. McKim. In a short time the Commission added Mr.



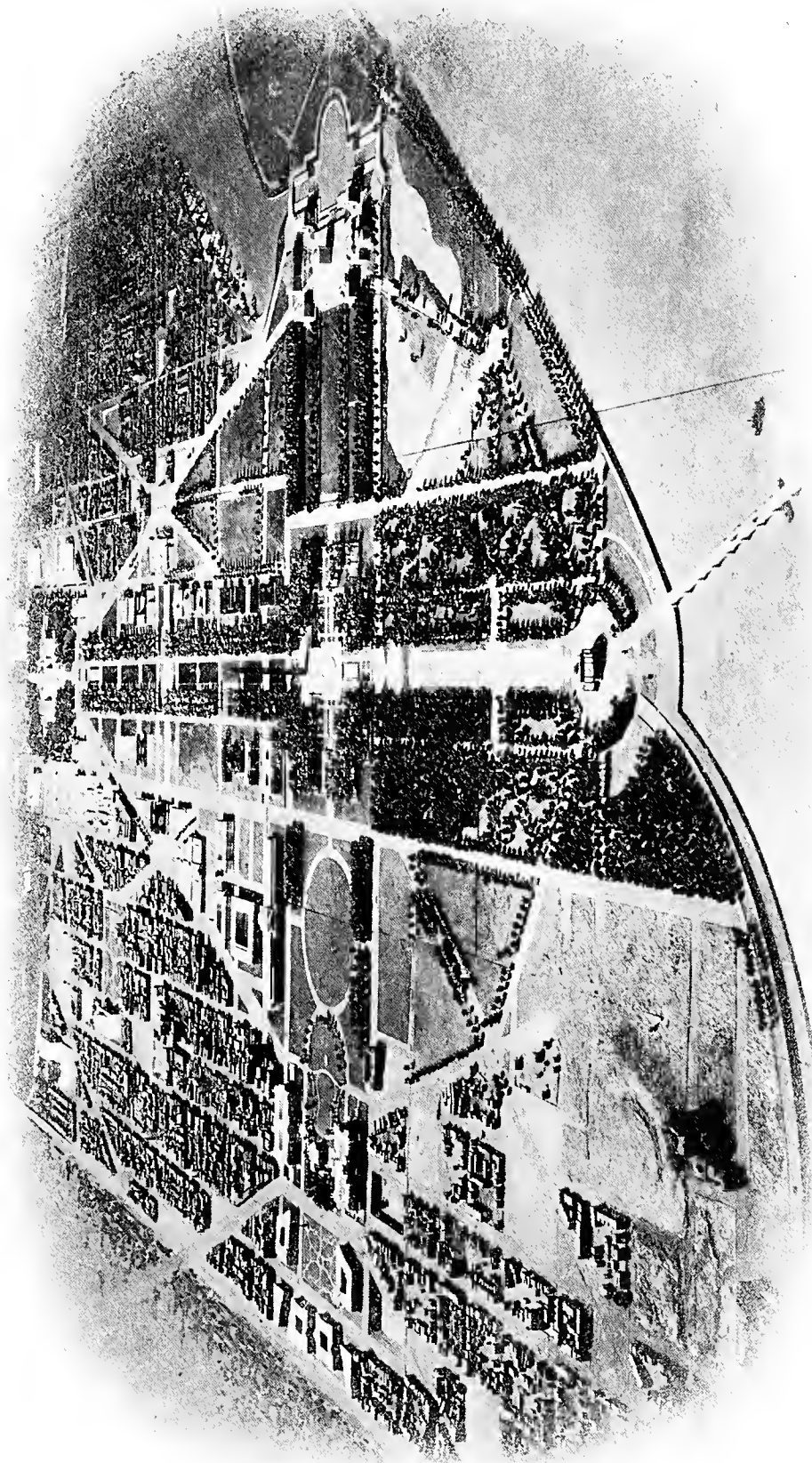
BASIN AND STAIRWAYS AT THE FOOT OF THE CAPITOL GROUNDS
Forming also a termination of the Mall



THE WHITE HOUSE

THE CAPITOL
THE MONUMENT

THE PARK COMMISSION'S MODEL SHOWING WASHINGTON AS IT IS TODAY
From a photograph especially taken for HOUSE & GARDEN



MEMORIAL TO THE
MAKERS OF THE
CONSTITUTION

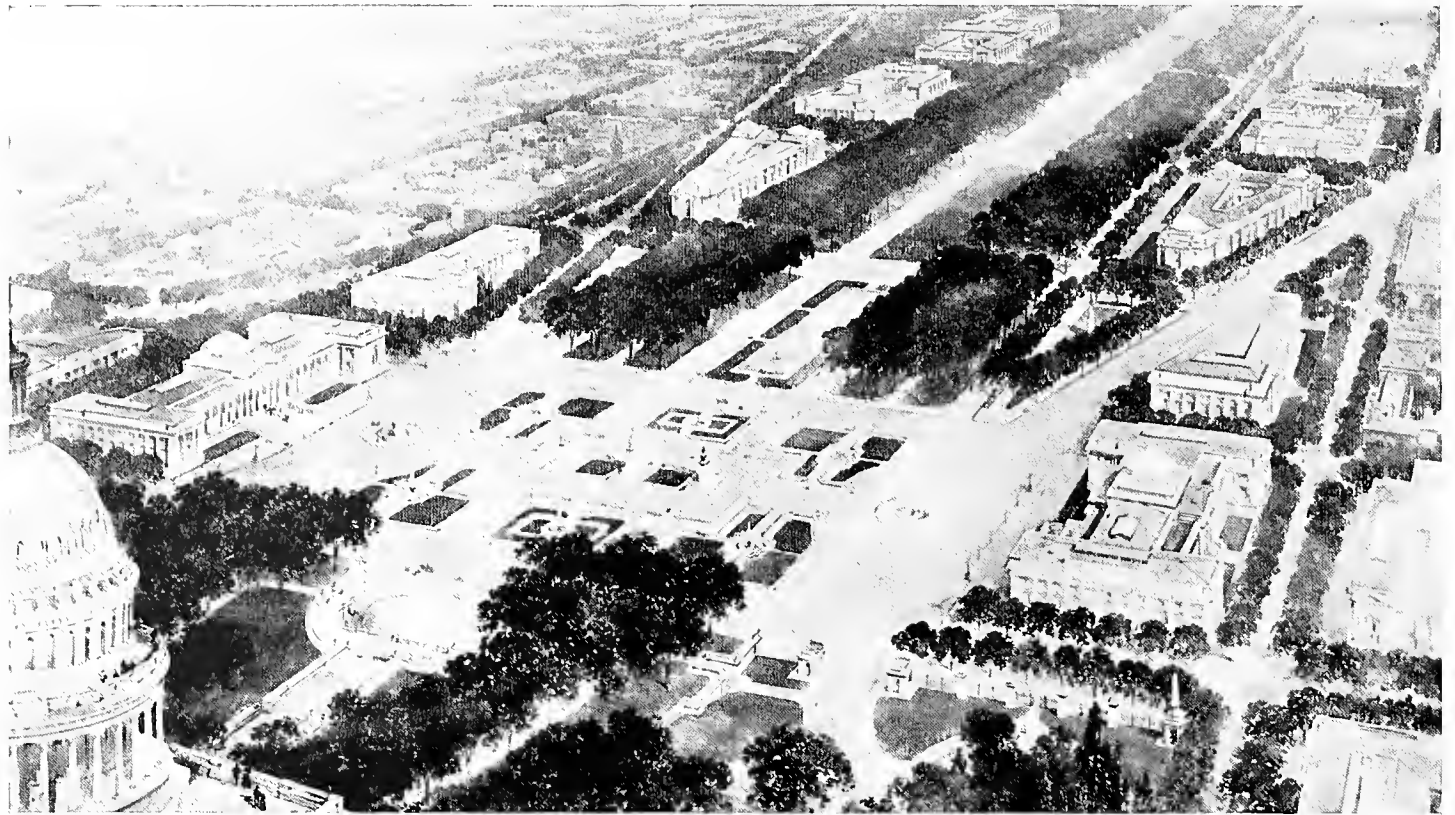
WASHINGTON
COMMON

THE CAPITOL
THE MALL
THE MONUMENT AND GARDEN
THE CANAL
THE LINCOLN MEMORIAL

"THE WHITE LOT"

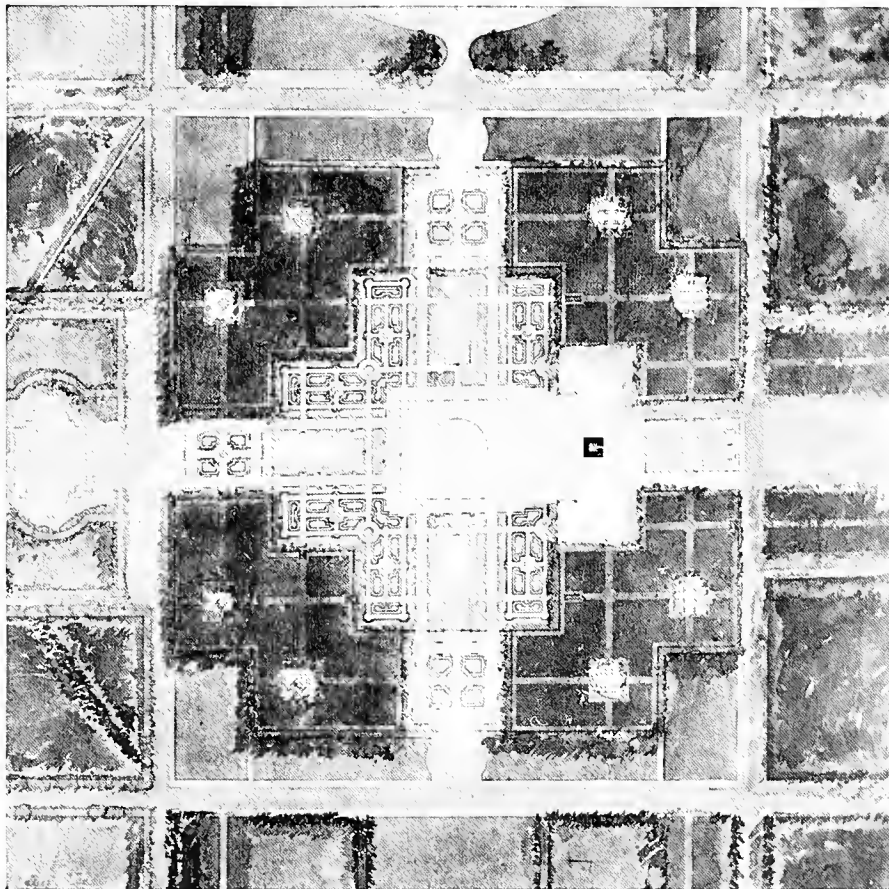
THE WHITE HOUSE
AND
DEPARTMENT BUILDINGS

THE PARK COMMISSION'S MODEL SHOWING THE NEW WASHINGTON
From a photograph especially taken for HOUSE & GARDEN



LOOKING WESTWARD FROM THE CAPITOL
Union Square in the foreground

Augustus St. Gaudens, so as to obtain his advice upon sculptural effects. The report was submitted to the Senate Committee on the District of Columbia, January 15th, and was unanimously approved. It was accompanied by drawings and models presenting a comprehensive scheme, together with numerous enlarged photographs of vistas, parkways, fountains, and other park embellishments already existing abroad.



PLAN OF THE MONUMENT GARDEN

Building as the crowning feature of the city at the east end of the enlarged Mall. Around it are grouped buildings for legislative

In the entrance hall of the Corcoran Gallery of Art, where the drawings and models have been placed upon exhibition, is an enlarged view of L'Enfant's map, virtually the keynote of the proposed changes and extensions. The new plan, summing up the chief labors of the Commission, is the first drawing to attract attention. It shows the Capitol

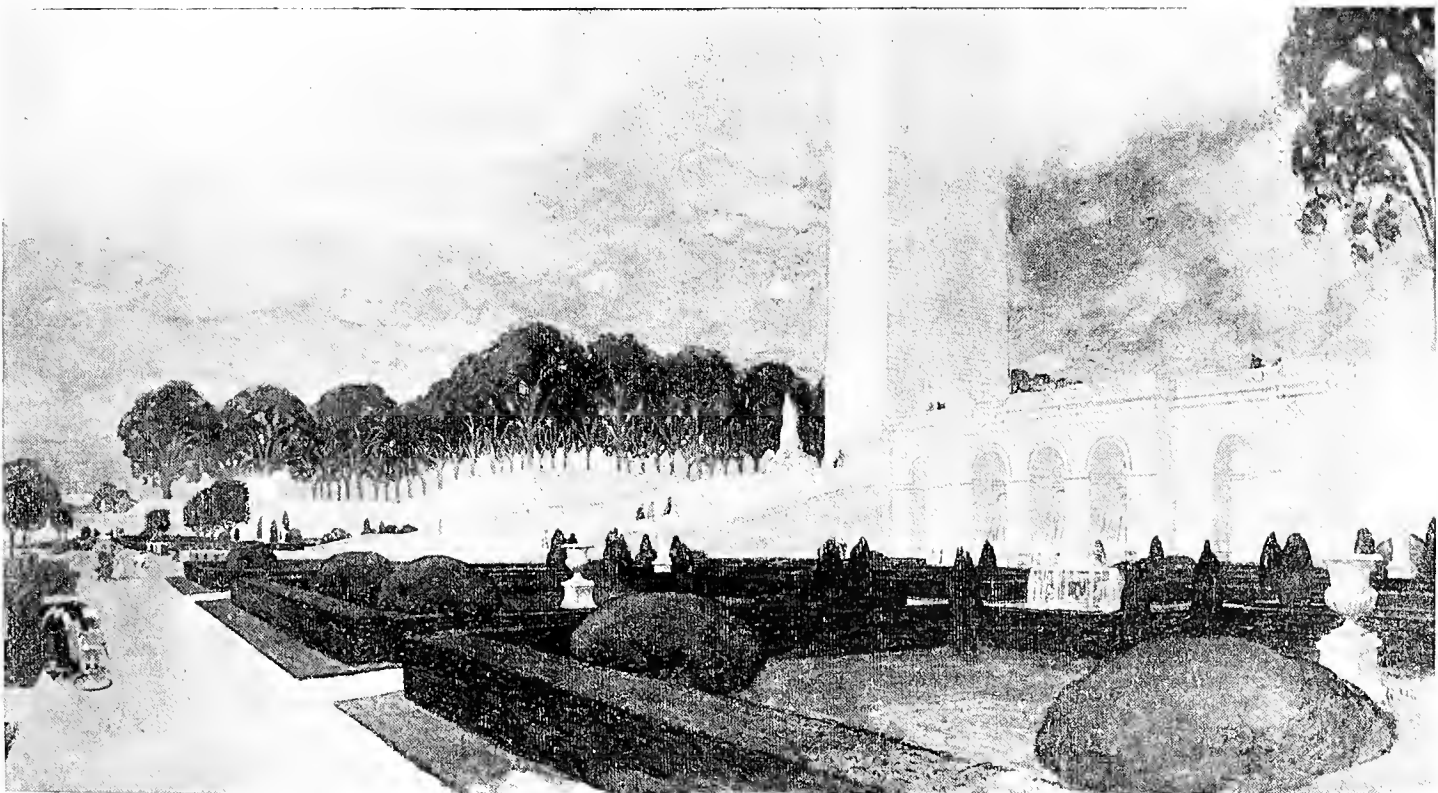


From a drawing rendered by Jules Guerin

IN THE MONUMENT GARDEN LOOKING EASTWARD

purposes so situated as not to destroy but to enhance the original vistas. At the foot of the Capitol grounds is Union Square, a formal space without trees, but well supplied with architectural adornment and with a Government building at the north and south ends. The west terrace of the Capitol is made the same width as the new Mall and, giving additional base to the Capitol, it materially improves the already imposing setting of the building. The splashing waters of cascades assemble in a pool upon each side of which ascend

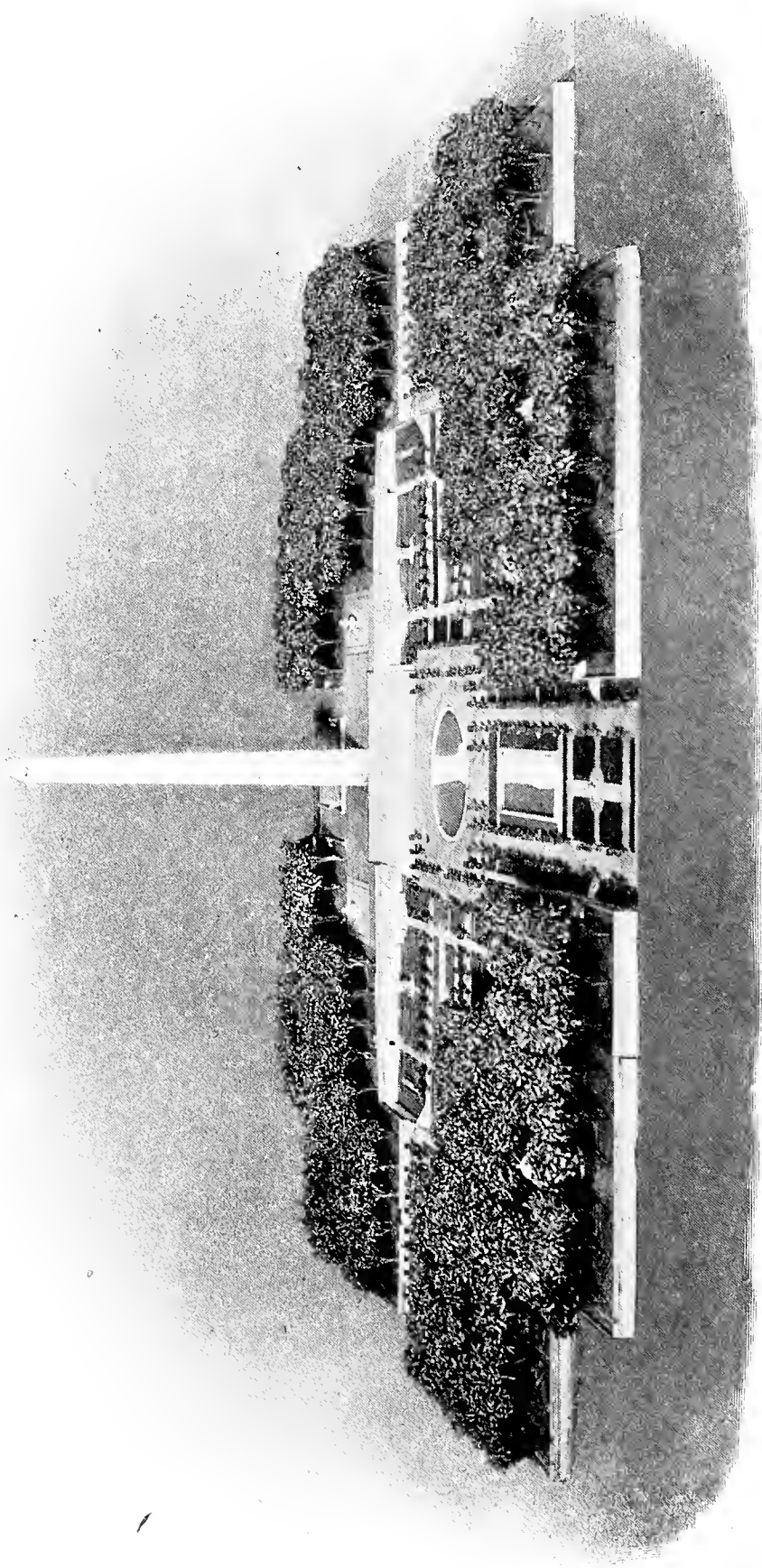
winding stairways. Above are formal lines of trees leading in a graceful curve up to the main building of the Capitol. Statues to Generals Grant, Sherman and Sheridan occupy prominent axial positions, and the terrace wall is flanked by marble reproductions of the Bulfinch gatehouses and gateposts. These were removed to make way for the improvement of the grounds in 1876; and though discarded, are far more in harmony with the architecture of the Capitol than the ornaments which took their place.



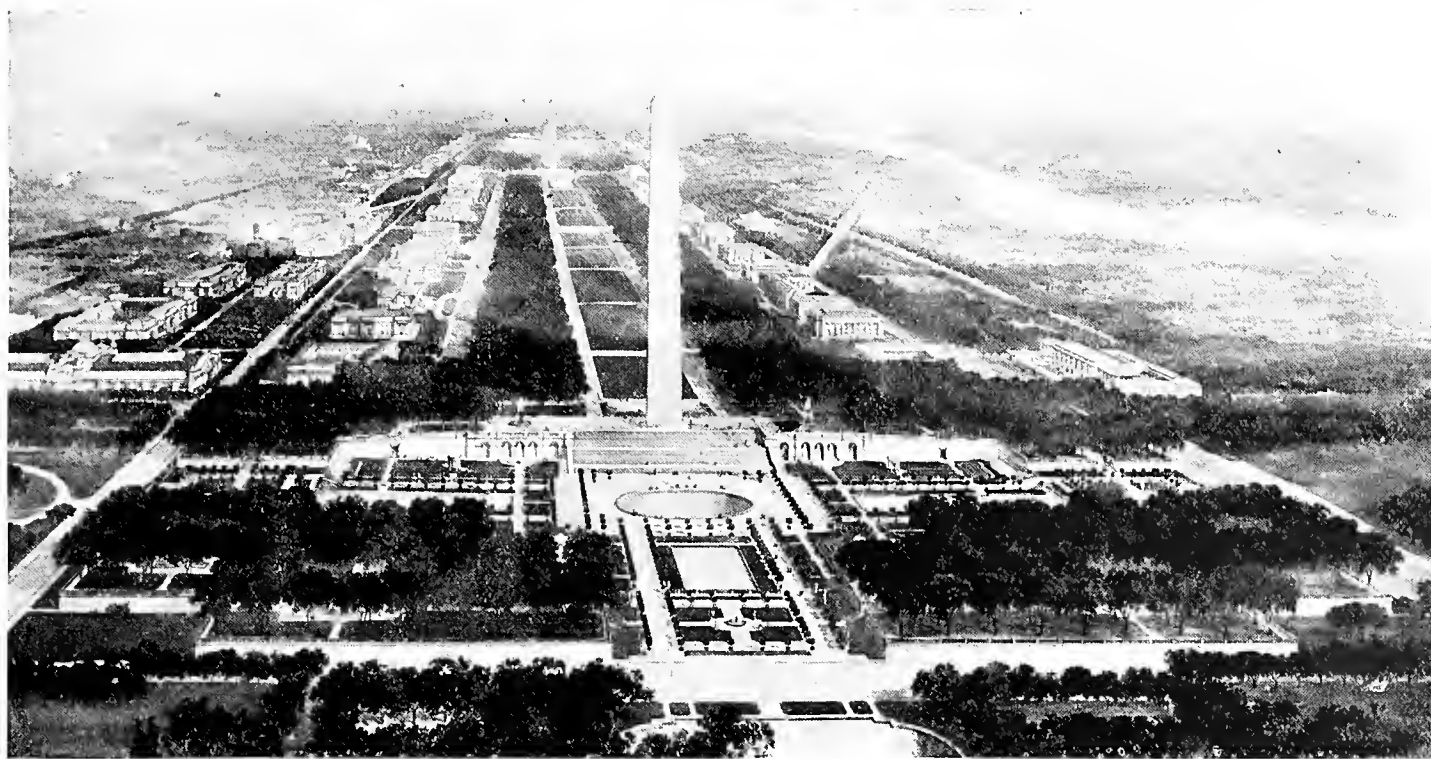
From a drawing rendered by Jules Guerin

THE NEW SETTING FOR THE MONUMENT

From the garden on the West. On the left is a vista to the White House



THE PARK COMMISSION'S MODEL OF THE MONUMENT AND ITS GARDEN
From a photograph especially taken for HOUSE & GARDEN



From a drawing rendered by Charles Graham

GENERAL VIEW OF THE MONUMENT GARDEN LOOKING TOWARD THE CAPITOL.

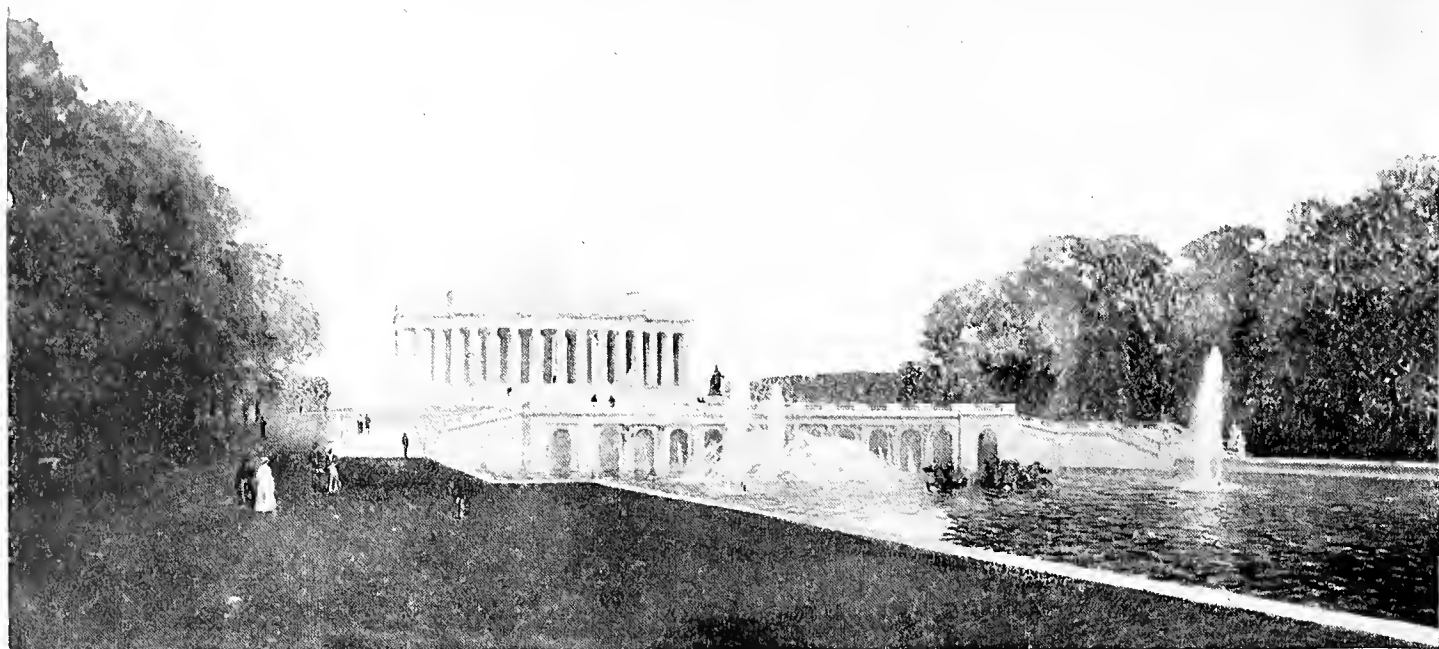
From Union Square to the Monument—a distance of a mile and a half—extends a broad majestic avenue of green sward, flanked on each side by four rows of American elms. The formally planted trees broaden into a great square at the Monument, and give to it a setting and a scale which it appears to me could not be attained in any other way. At the end of this *tapis vert* the white shaft rises about five hundred and sixty feet from a plaza but slightly raised above the turf. The shaft, at present standing on a small



A PAVILION IN THE MONUMENT GARDEN

hillock, seems to sprout from the ground, and a need is felt of a horizontal plane on which it should rest. This base is given in the new design by the esplanade which, beyond on the west, is treated as a broad marble terrace. A flight of steps descends forty feet to a formal garden below. In the form of a Greek cross

dense planting of elms surrounds it and its center is enriched by parterres and minor walks. The model which has been prepared of this section gives a clear idea of shaded groves in the midst of which, with charming effect, are placed resting pavilions, fountains in large basins of water and still pools surrounded by quiet borders of grass. From this garden an opening continues of the same width as the *tapis vert* between the Capitol and the Monument. Instead of lawn, however, the principal surface here is of water within a canal about two hundred feet wide and three thousand six hundred feet long. Crossing it is another canal more than a thousand feet long. The vista from the Monument westward is ended by the Memorial to Abraham Lincoln, which is placed on the river bank. Here the Memorial Bridge across the Potomac begins. Standing within

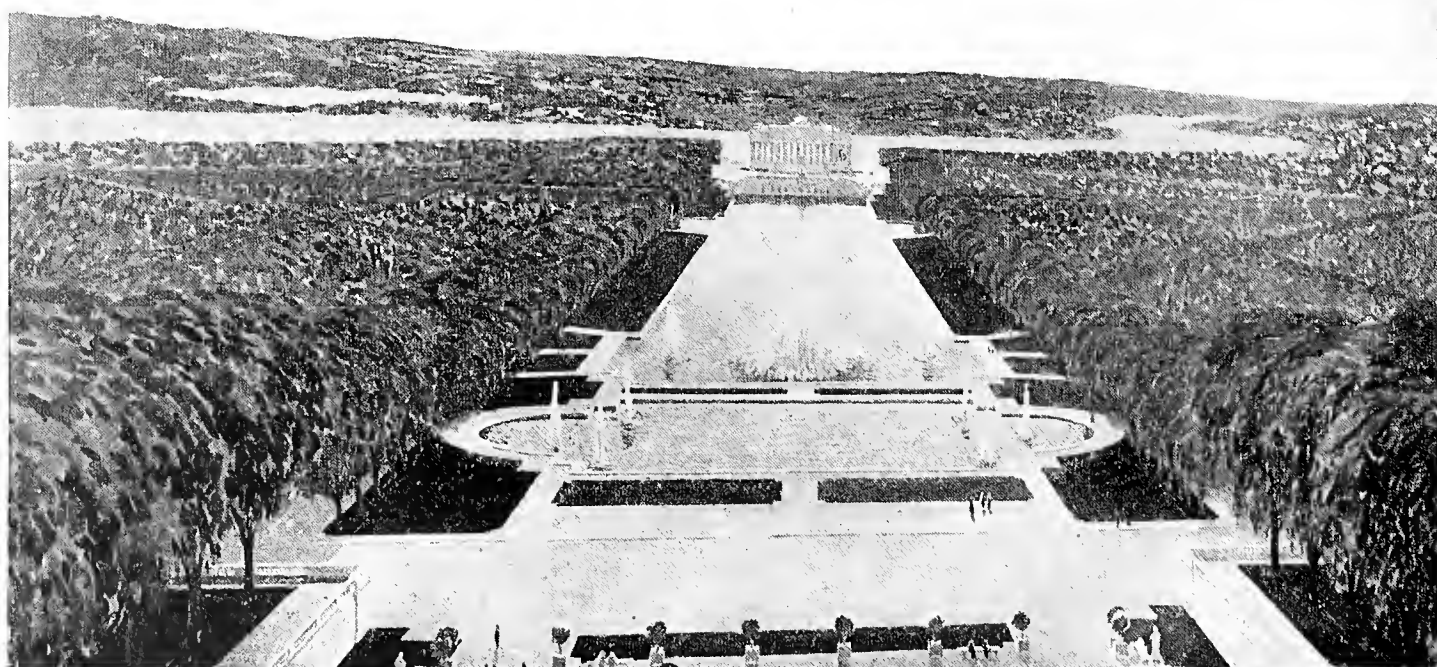


THE LINCOLN MEMORIAL AND THE CANAL

the peristyle of this memorial, charming in its refinement and simplicity, one may look eastward over the canal and the formal garden past the Monument to the dome of the Capitol two and a half miles distant. In the other direction the eye follows the Memorial Bridge (whose axis starts from the point where one stands) to the pediment of the old Arlington mansion on the hills of Virginia.

The plan of L'Enfant located a monument

at the intersection of the north and south axis of the White House and the east and west axis of the Capitol, but the present shaft was reared, for unknown reasons, about seventy-five feet south of the Capitol axis and about five hundred feet east of the center of the White House. The Commission has boldly fixed the center line of the contemplated improvement on this axis, as they found it, of the Monument and Capitol. The inaccurate posi-



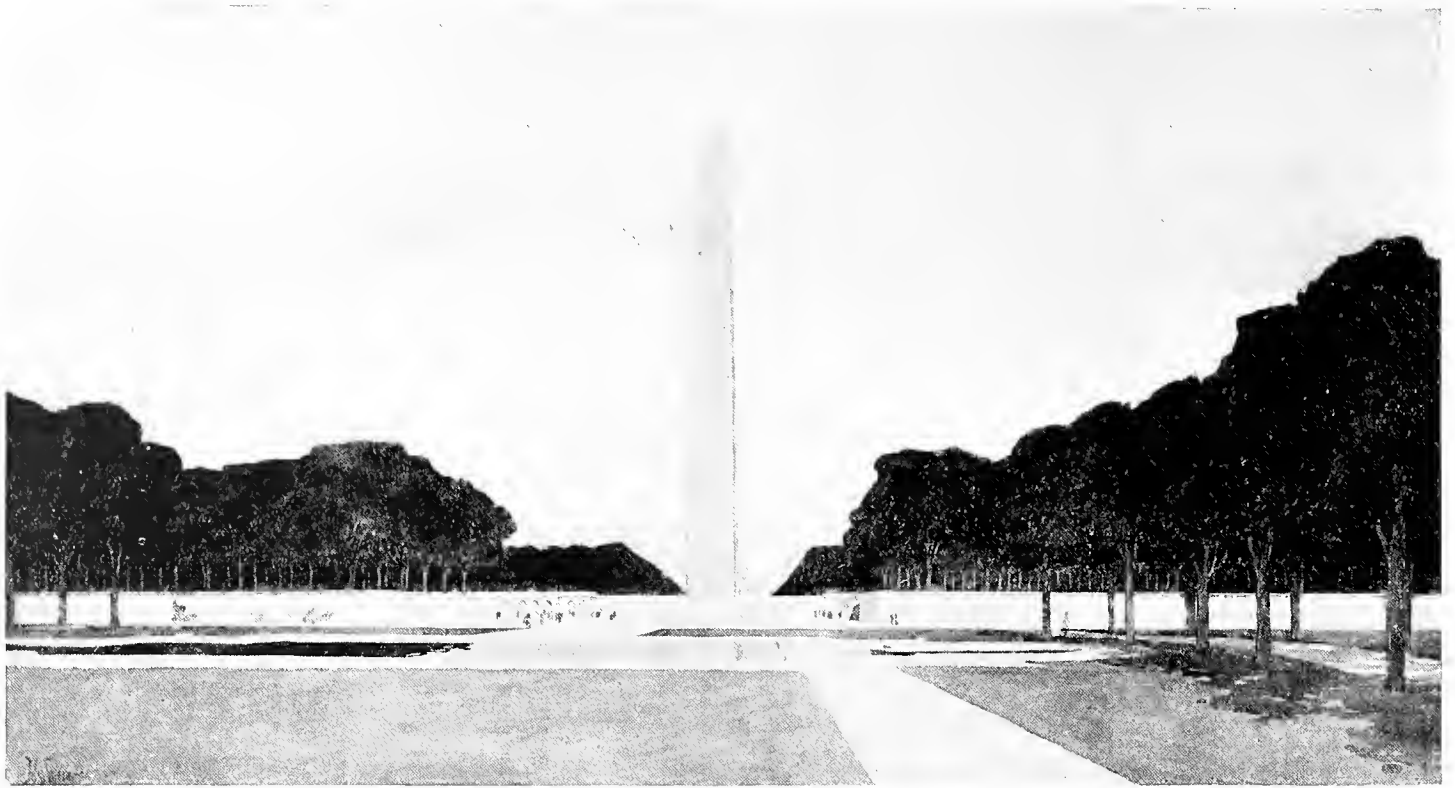
LOOKING WESTWARD FROM THE MONUMENT



From a drawing rendered by Jules Guerin

VIEW FROM THE WHITE HOUSE

*Across "The White Lot" and the Monument Garden
The Memorial to the Makers of the Constitution in the distance*

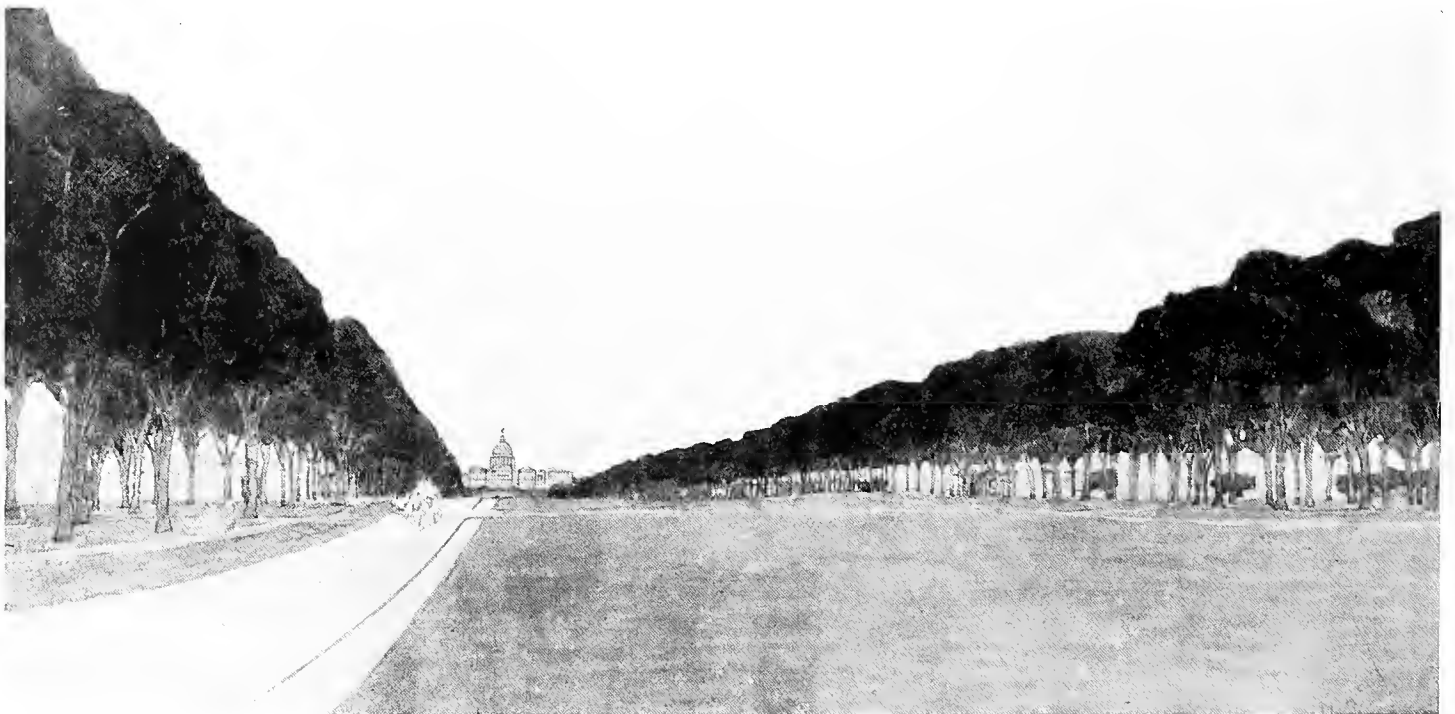


THE MONUMENT FROM THE EAST

tion of the former was too great to admit of deflecting the center lines of the treatment making a false axis with the White House. That building has been left unchanged and the adherence to it appears to be a happy circumstance, for the principal treatment at right angles with the Mall proposes a group of buildings for Executive Departments to be arranged around Lafayette Square in prox-

imity to the President's house. The grounds south of this house, known as "The White Lot," are so planted with four rows of trees that an uninterrupted view is had between them across its broad circle of grass, through the low garden by the Monument, to the Washington Common and the river beyond.

The Washington Common lies south of the Monument Garden, directly in line with

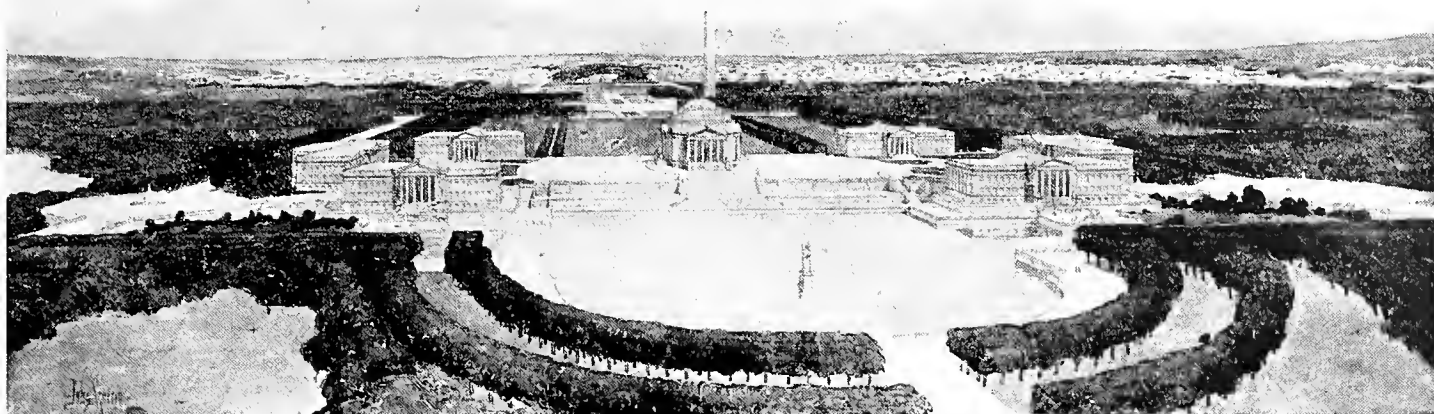


THE NEW MALL

the White House, and it provides large greens for outdoor games and athletic sports. At the far end, upon land to be reclaimed from the malarial marshes of the river, has been designed the Memorial to the Makers of the Constitution. A domed classic structure stands isolated upon a vast platform, at each end of which are three minor buildings symmetrically disposed. All of these overlook

silvery waters of the Potomac and the hills upon the distant shore.

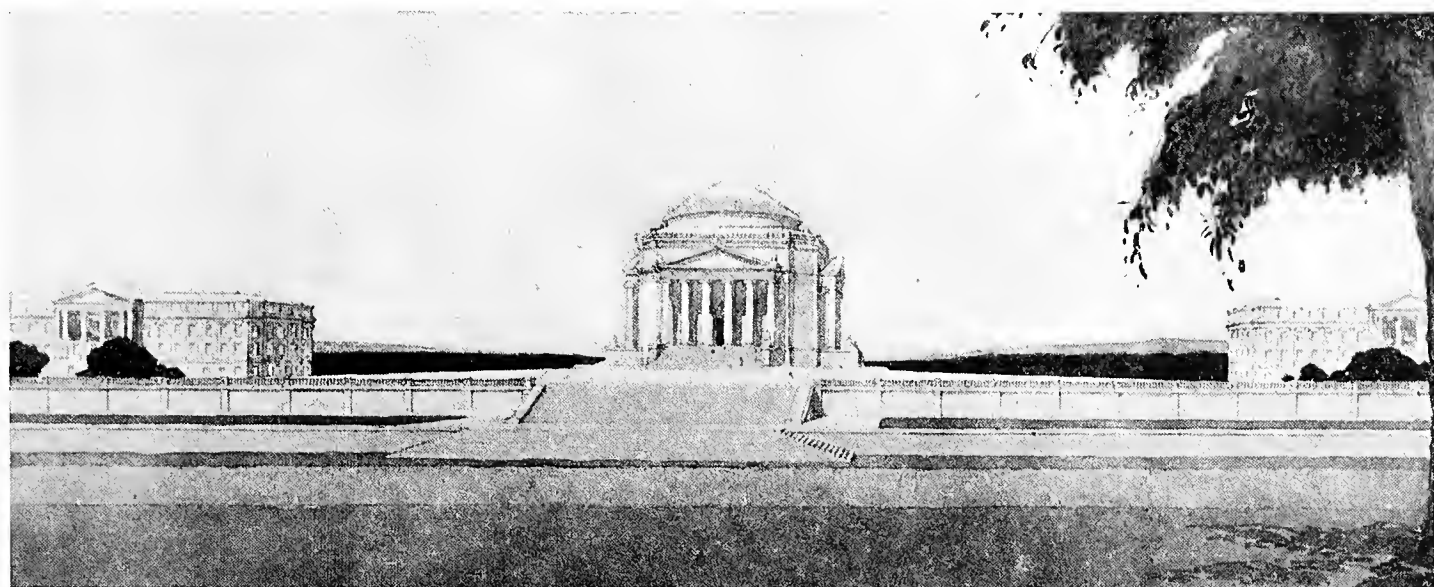
Fronting the Mall upon the north it is proposed to erect such scientific buildings in which the general public is interested, as the National Museum and Smithsonian Institute. Farther to the north, on purchased property between Pennsylvania Avenue and B Street, is contemplated the location of



Theatre and Public Baths

The Pool for Aquatic Sports

Gymnasium and Athletic Buildings



From drawings rendered by Jules Guerin

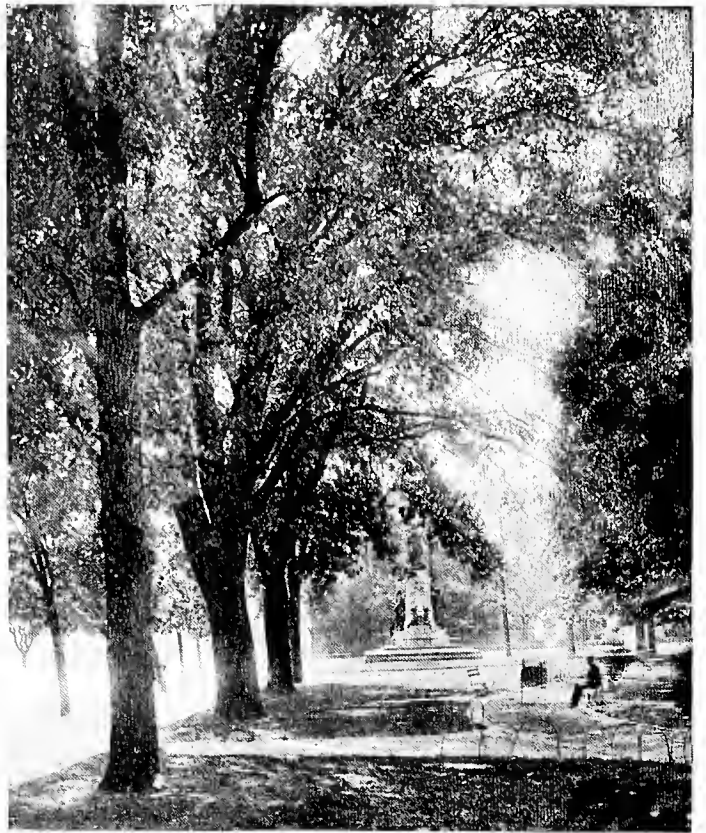
THE MEMORIAL TO THE MAKERS OF THE CONSTITUTION

a great semicircular basin separated from the open waters of the Potomac by a mole surmounted by a shaded avenue. The water within is intended for aquatic sports and public baths in the summer, and for skating in the winter. This dignified group, finally terminating the vista from the White House across "The White Lot," the sunken garden and the playing fields, is outlined before the

various municipal structures such as the buildings for District officials, the Armory and Drill Hall, a public market, etc. Upon the south, it is suggested, the space between Maryland Avenue and B Street should be acquired to give a symmetry to the fan-shaped park system diverging from the Capitol. The purchase of the district between New York Avenue and B Street is



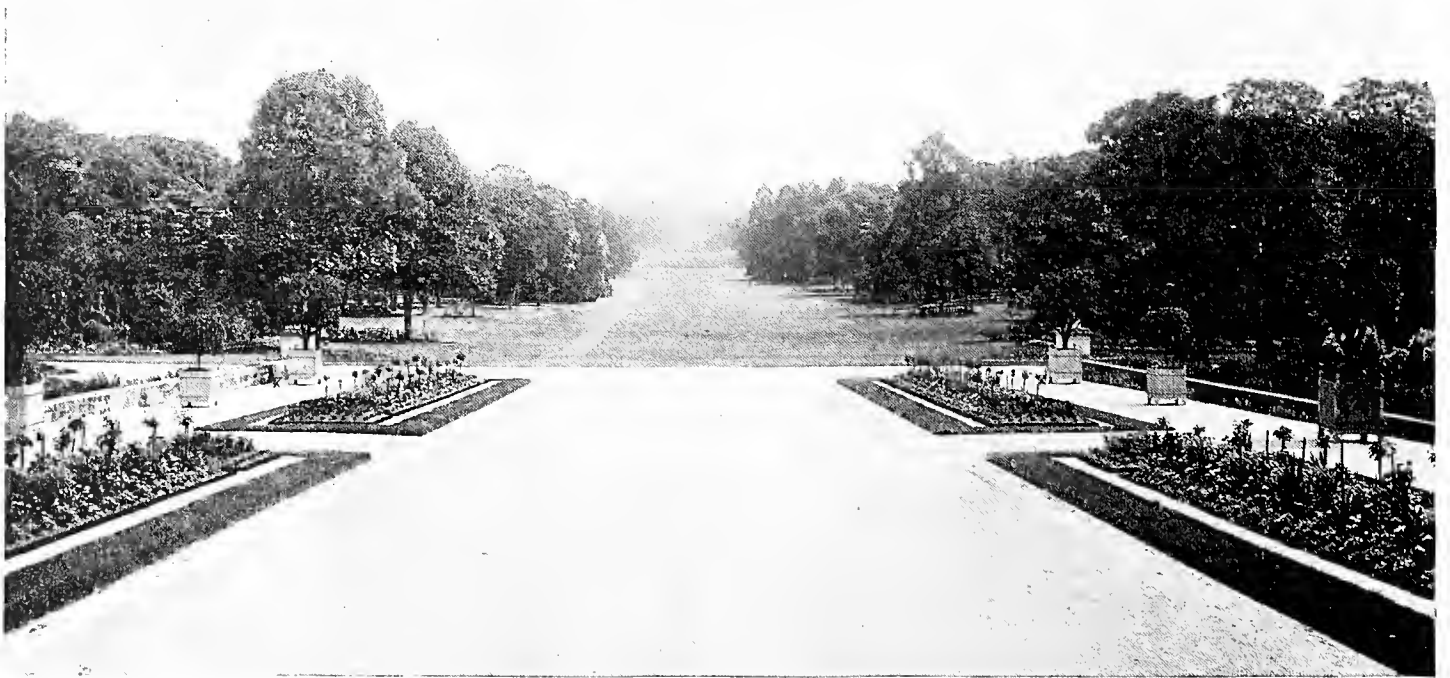
AMERICAN ELMS ON LAFAYETTE SQUARE



WASHINGTON

also proposed to give a further symmetry west of the White House and to accommodate future buildings of a semipublic character. The detailed views, which the Commission's superb collection of drawings affords, naturally divide themselves into five groups or divisions by which reference to the

exhibition is made:—the Capitol, the Mall, the Monument, the Lincoln Memorial, the Washington Common (including the Memorial to the Makers of the Constitution). As an adjunct to the drawings and models, is a series of diagrams showing the comparative extent and the method of connecting in a



THE "*Tapis Vert*"

AT VERSAILLES



THE *Char Embourbe* AND AVENUE

AT VERSAILLES

continuous circuit the park areas of London, Paris, Boston and of Washington as it now is and as it is proposed to make it. Suggestions are shown for connecting the Mall with the outlying parks of the city and for boulevards along the Potomac west of Georgetown.

In a graphic and convincing way numerous photographic enlargements of foreign park scenes illustrate the results to be attained by the new arrangement. The Long Water at Hampton demonstrates the beautiful effect to be obtained by the vista down the canal west of the Monument, and the

tapis vert of the Mall is represented by many views from Versailles and elsewhere. Numerous fountains are shown to prefigure those which may be expected in the various basins and squares of the new city. As the elm has been selected for general use in the formal planting, not the least interesting feature of this photographic exhibition is a collection of views showing the American tree as it

appears in Washington and as far north as Boston. The scheme presented for all these improvements is in no sense a visionary one. The property the Commission suggests to be acquired is real estate which at present is



THE LONG WATER AT HAMPTON COURT



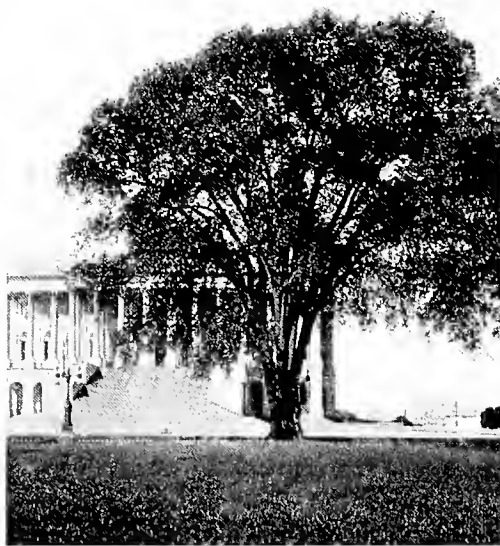
THE BASIN OF NEPTUNE

AT VERSAILLES

inexpensive. The beautifying of the Mall is merely a question of planting; the suggested treatments around the Monument and the Capitol are only appropriate settings for these noble structures; and certainly Abraham Lincoln and the Makers of the Constitution deserve as superb memorials as the hearts and purses of the American people can erect to

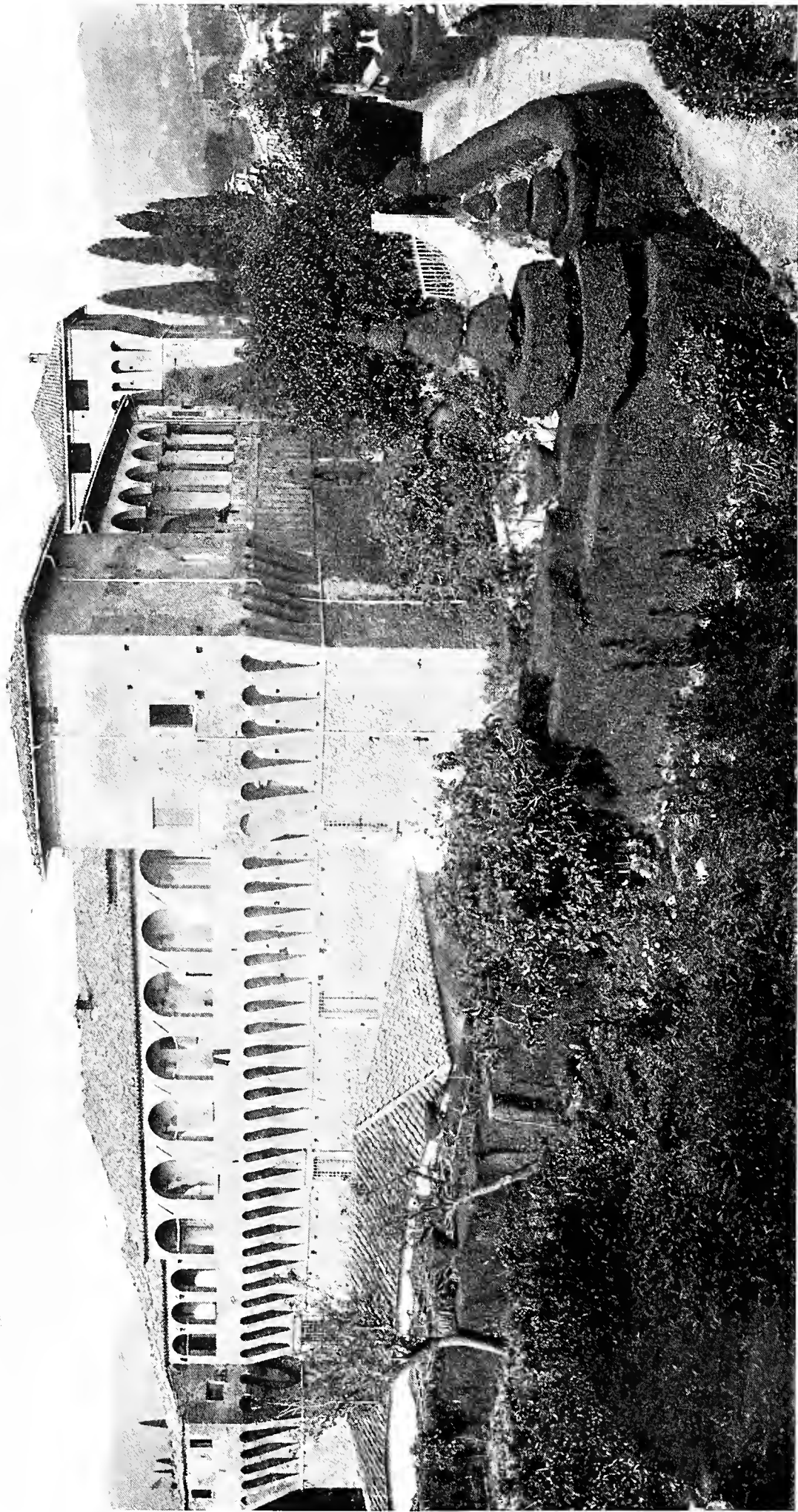
them. The improvement of Washington, the Capital city of the country, should not be a question of local pride alone; the enthusiasm of the whole United States should be called forth to make its reconstruction the principal artistic achievement of the century,—the pride of all Americans and the pleasure and wonder of foreigners.

Glenn Brown



“THE CHARLES SUMNER ELM”

In front of the Capitol



TOPIARY WORK AT THE VILLA BUFALINI, S. GIUSTINO, ITALY

"FROZEN MUSIC."¹

PHILOSOPHERS tell us that there are two forms, or modes of consciousness; one of time, and the other of space. They are the two gates through which ideas enter phenomenal life,—the two boxes, as it were, that contain all the toys with which we play. Everything bears the stamp of one or the other of them (though we are not always keen enough to perceive it), and can be classified accordingly. If such a classification be attempted with regard to the arts, music is seen to be allied to time and architecture to space because music is successive in its mode of manifestation, and in time alone everything would occur successively, one thing following another; a work of architecture, on the other hand, impresses itself upon the beholder all at once, and in space alone, all things would exist simultaneously. Music, which is in time alone without any relation to space, and architecture, which is in space alone without any relation to time, are thus, in a manner, convertible each into the other, by reason of the correspondence subsisting between intervals of time and intervals of space. A perception of this may have inspired the famous saying that architecture is "frozen music,"—a poetical statement of a philosophical truth.

Music depends primarily upon the equal and regular division of time into beats, and of these beats into measures. Over this soundless and invisible warp is woven an infinitely various melodic pattern, made up of tones of different pitch and duration

arithmetically related and combined according to the laws of harmony. Architecture implies the rhythmical division of space, and obedience to laws numerical and geometrical. A certain identity, therefore, exists between simple harmony in music, and simple proportion in architecture. By translating the consonant tone intervals into number, "the universal solvent," it is possible to give them a spatial, that is, an architectural expression. Such expression, considered as proportion only and divorced from ornament, will prove pleasing to the eye in the same way that its

correlative is pleasing to the ear, because in either case it is not the special organ of sense which is gratified, but the soul itself, in which all senses are one. Containing within itself the mystery of number, it thrills responsive to every audible or visible presentment of that mystery.

If a vibrating string yielding any given musical note be stopped in its centre, that is, divided by half, it will then give the octave of the original note. The numerical ratio which expresses the interval of the octave is, therefore, 1:2. If one-third instead of

one-half of the string be stopped, and the remaining two-thirds struck, it will yield the musical fifth of the original note, which thus corresponds to the ratio 2:3. The length represented by 3:4 yields the fourth, 4:5 the major third, and 5:6 the minor third. These comprise the principal consonant intervals within the scope of one octave. The ratios of inverted intervals, so-called, are found by doubling the smaller number of the

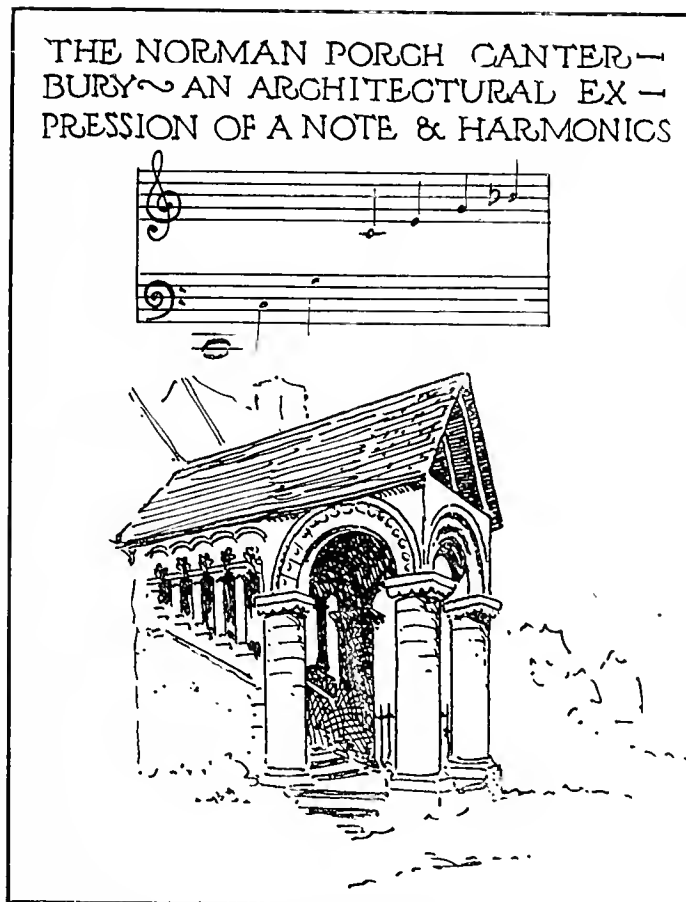
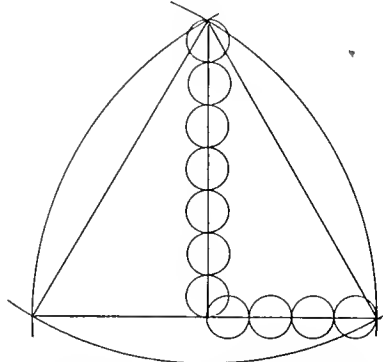


FIGURE ONE

¹ The second of Mr. Bragdon's series of articles entitled:—"The Beautiful Necessity: being Essays upon Architectural Esthetics," begun in the January number of HOUSE AND GARDEN.

original interval as given above. $2:3$, the fifth, gives $3:4$, the fourth; $4:5$ the major third, gives $5:8$, the minor sixth; $5:6$, the minor third gives $6:10$, or $3:5$, the major sixth.



THE RELATION BETWEEN THE SUBMINOR SEVENTH ($4:7$) AND THE EQUILATERAL TRIANGLE~

FIGURE TWO

Of these various consonant intervals the octave, fifth, and major third are the most important because the most perfect. It will be noted that all of the intervals above given are expressed by means of the numbers 1, 2, 3, 4, 5, and 6, except the minor sixth; and this, of all consonant intervals, is the most imperfect. The subminor seventh, whose ratio is $4:7$, though included among the dissonances forms, according to Helmholtz, a more perfect consonance with the tonic than the minor sixth.

A natural deduction from these facts is that relations of architectural length and breadth, height and width, to be "musical" should be capable of being expressed by ratios of quantitatively small numbers. Although, generally speaking, the simpler the ratio the more perfect the consonance, yet the intervals of the fifth and major third ($2:3$, and $4:5$)

are more pleasing than the octave ($1:2$), which is too obviously a repetition of the original note. From this it is reasonable to assume (and the assumption is borne out by experience) that proportions, the numerical ratios of which the eye resolves too readily, become at last wearisome. The relation should be felt rather than fathomed. There should be a perception of identity, and also of difference. As in music, where dissonances are introduced to give value to consonances which follow them, so in architecture simple ratios should be employed in connection with those more complex.

Harmonics are those tones which sound with and reenforce any musical note when struck. The distinguishable harmonics of the tonic are given in figure one. They yield the ratios, $1:2$, $2:3$, $4:5$, and $4:7$. The note and its harmonics form a natural chord. They may be compared to the widening circles which appear in still water when a stone is dropped into it; for when a musical sound disturbs that pool of silence which we call the air, it ripples into overtones which, becoming fainter and fainter, die away into the original silence. It would seem that the combinations of numbers which express these overtones, if translated into terms of space, should yield proportions agreeable to the eye. Figure three illustrates a simple application of these ratios to architecture. The subminor seventh ($4:7$), used in this way, in connection with the simpler intervals of the octave ($1:2$), and the fifth ($2:3$), is particularly pleasing, because it is neither too obvious nor too subtle. This interval is important from the fact that it expresses the angle of sixty

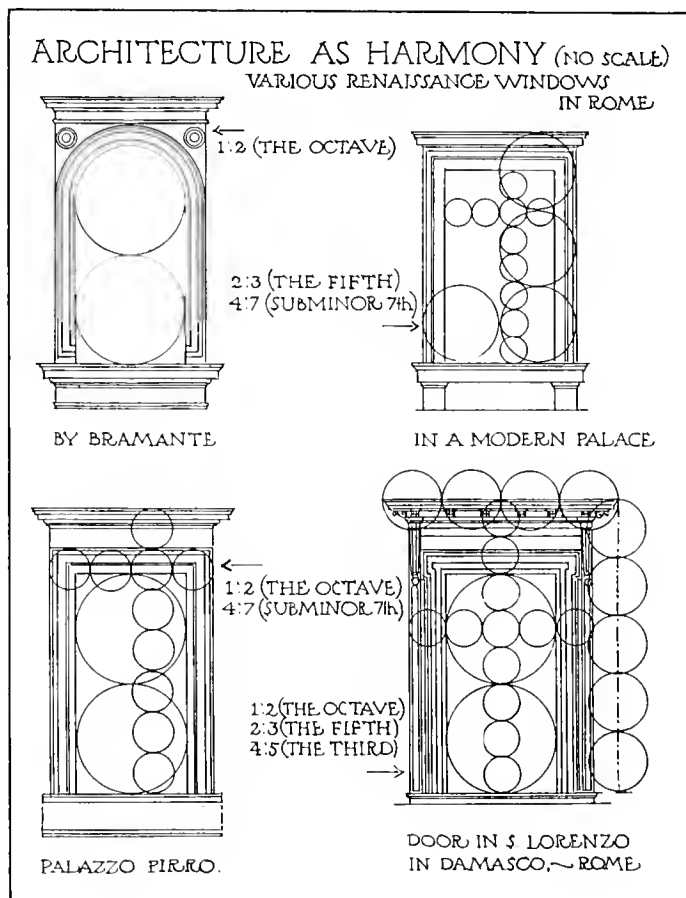


FIGURE THREE

degrees. This interval is important from the fact that it expresses the angle of sixty

degrees, because the numbers 4 and 7 represent (very nearly) the ratio between one-half the base and the altitude of an equilateral triangle. According to Gwilt, the Gothic chapels at Windsor and Oxford are divided longitudinally by four, and transversely by seven equal parts.

A distinguishing characteristic of the series of ratios which represents the consonant intervals within the compass of an octave is that it advances by the addition of 1 to both terms, 1 : 2, 2 : 3, 3 : 4, 4 : 5, and 5 : 6. Such a series always approaches unity, just as, represented graphically by means of parallelograms, it tends toward a square. According to W. Watkiss Lloyd,—in an article published in *The American Architect* of March 31st, 1888—the scale of ratios which determined all the important proportions of the Parthenon is of this order, advancing by consecutive differences of 5, as shown in figure four. Mr. Lloyd goes on to say: "The oblong plan of the temple has exactly the proportion of breadth to length of 4 : 9,—131.341 front, 228.141 on flank, (error, .012). The same proportion is repeated in the well marked definition of breadth of top step—the hundred Attic feet—and the height from this step to the top of the horizontal cornice." (It will be noted that this, the most important ratio, is not the simplest.)

It would be a profitless task to attempt to formulate exact rules of architectural proportion, based upon the laws of musical harmony. The two arts are too different

from each other for that; and moreover the last appeal must always be to the eye, and not to a mathematical formula, just as in music the last appeal is to the ear. Nothing is truer than that "the concept is unfruitful in

art." Laws there are, but they discover themselves to the artist as he proceeds, and are for the most part incommunicable. No masterpiece was ever fashioned by means of predetermined formulas of beauty, though from every masterpiece such formulas may be deduced. And these are useful and valuable, not as a substitute for inspiration, but as a guide: not as wings, but as a tail.

In the present instance, perhaps all that it is necessary for the architectural designer to consider is that important ratios of height and width should be composed of quantitatively small numbers; and that if possible, they should obey some simple law of numerical progression. From this basic simplicity complexity will follow, but it will be an ordered and harmonious complexity, like that of a tree, or of a symphony.

In the same way that a musical composition implies the division of time into equal and regular beats, so a work of architecture should have for its basis some unit of

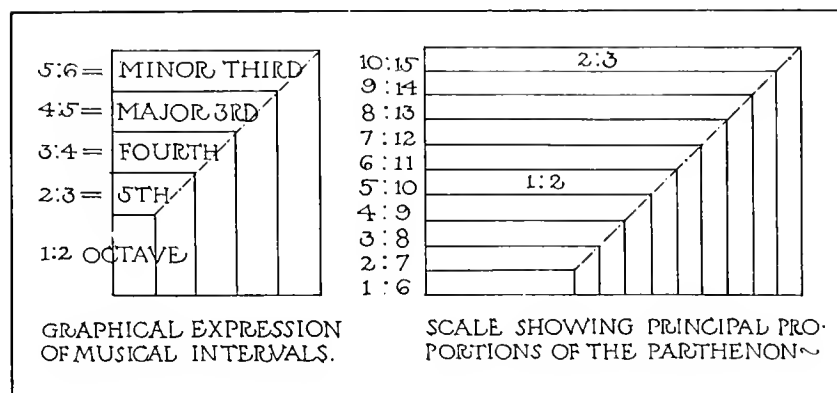


FIGURE FOUR

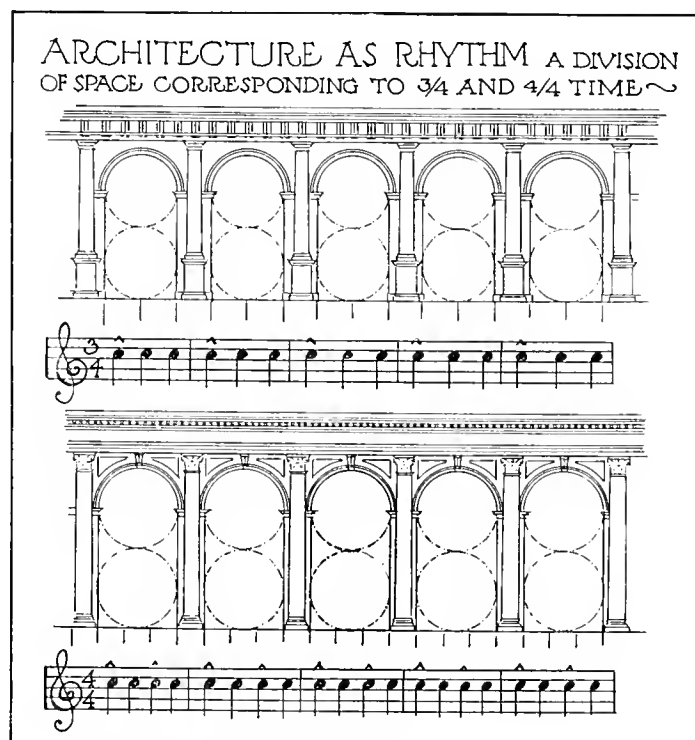
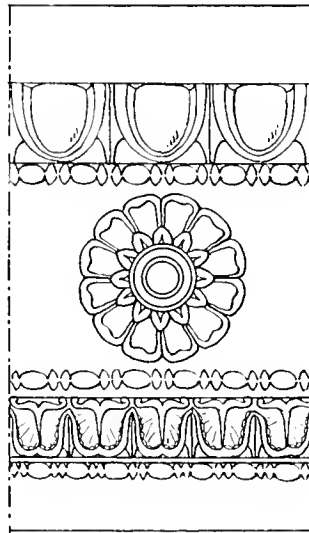
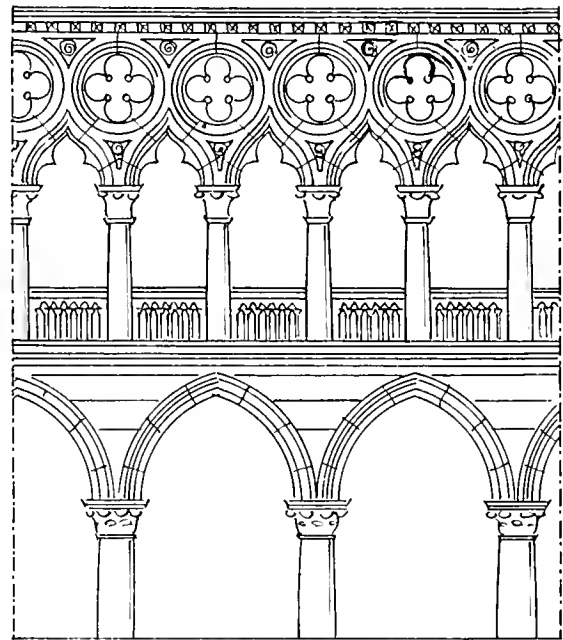


FIGURE FIVE

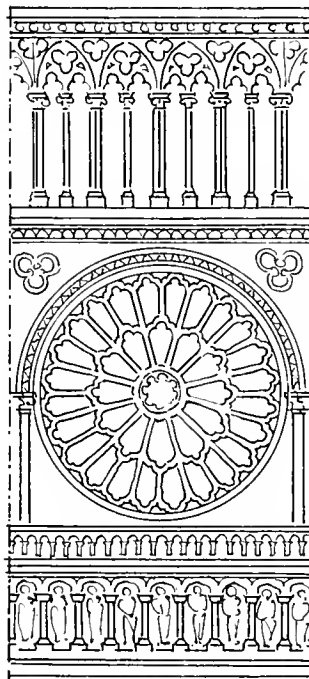
ARCHITECTURE AS PATTERN. (NO SCALE)



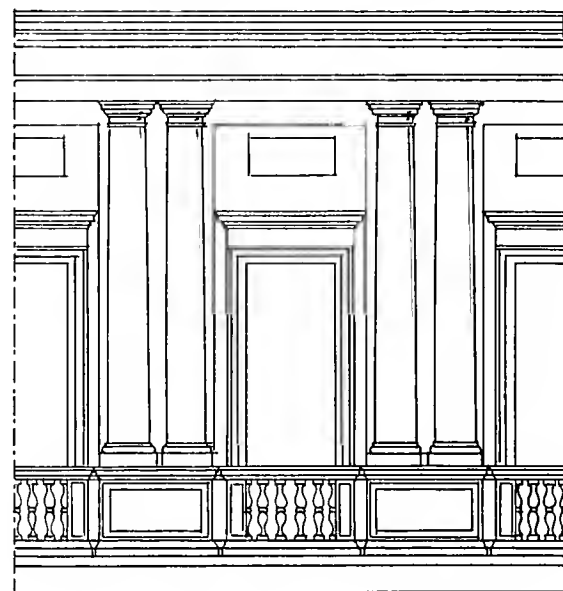
GREEK~FROM THE
ERECHTHEION AT
ATHENS



ITALIAN GOTHIC~FROM THE
DUCAL PALACE AT VENICE



GOTHIC~FACADE
OF NOTRE DAME



ITALIAN RENAISSANCE~THE
PALAZZO STOPPIANI AT ROME

FIGURE SIX

space. This unit should be nowhere too obvious, and may be varied within certain limits, just as musical time is retarded or accelerated. The underlying rhythm and symmetry will thus give value and distinction to such variation. Figure five, which shows a Doric and a Corinthian arcade laid out according to Vignola, illustrates how close a parallel exists between music and architecture in this matter of rhythm.

It is a demonstrable fact that musical sounds weave invisible patterns in the air. Architecture, in one of its aspects, is geometric pattern made tangible and enduring, *i. e.*, "frozen music." In illustration of this, note the identity between the fragment of sculptured detail from the Erechtheum (shown in figure six), and the central portion of the front of Notre-Dame. The traceried arcades of the Venetian Ducal Palace remind one irresistibly of music. Every well composed façade makes harmony in three dimensions: every good roof line makes melody against the sky.

In a larger sense than any of the foregoing music and architecture are pure and related arts; for in them is presented not a likeness of some known idea, but a thing-in-itself,

brought to a distinct and complete expression of its nature. Neither a musical composition nor a work of architecture depends for its effect upon resemblances to natural sounds in one

case, nor to natural forms in the other. Poetry, painting, sculpture are not so much creative as re-creative, for in them the artist merely presents the likeness of some known idea in a new and beautiful way.

Music expresses best those universal emotions which are the exclusive possession of no race or caste, but the common heritage of humanity. It speaks directly to the soul in a simple and universal language the meaning of which is made personal and particular in the breast of each listener. "Music alone of all the arts," says Balzac, "has power to make us live within ourselves." Architecture expresses that other outside life which is not one, but infinitely various, being conditioned by race, climate, and environment. Architecture in presenting and preserving, as it does, a record of the complicated every-day life of a people, shows forth also the secret thought which animated them. Just as music, through the universal, arrives at the particular, so architecture, through countless particulars, attains the universal.

Claude Bragdon.

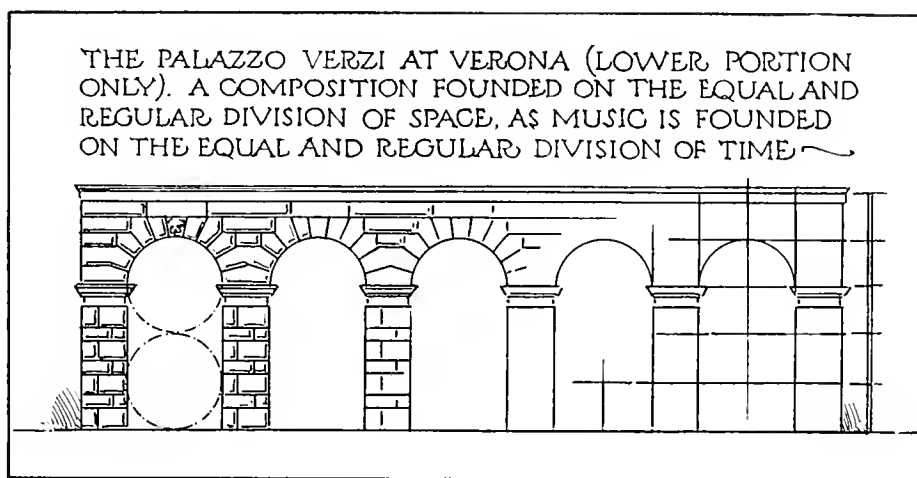
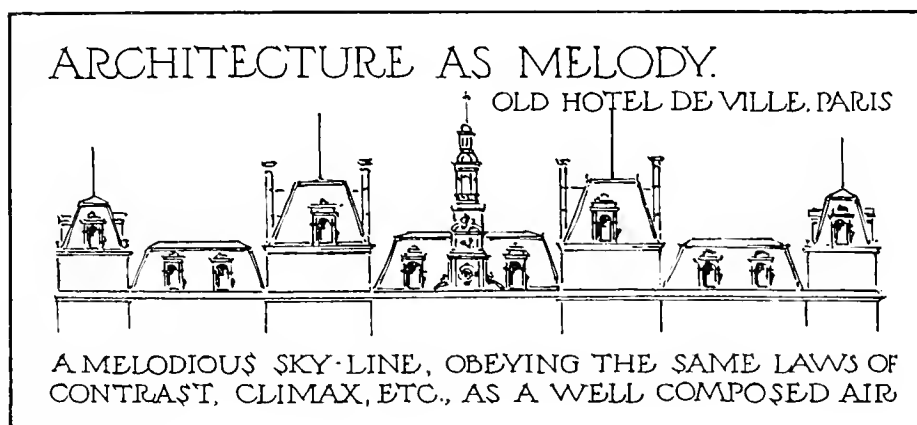
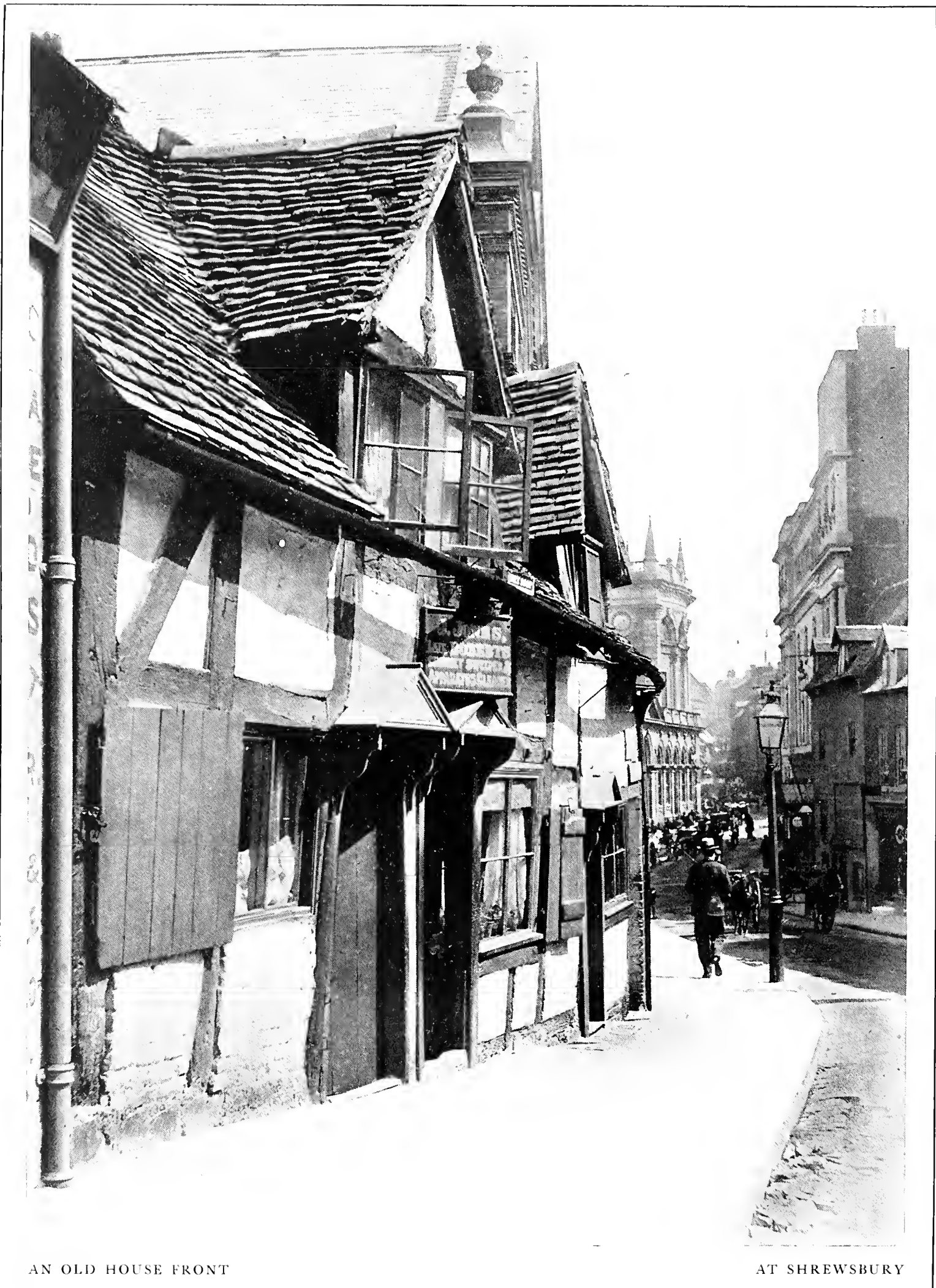


FIGURE SEVEN



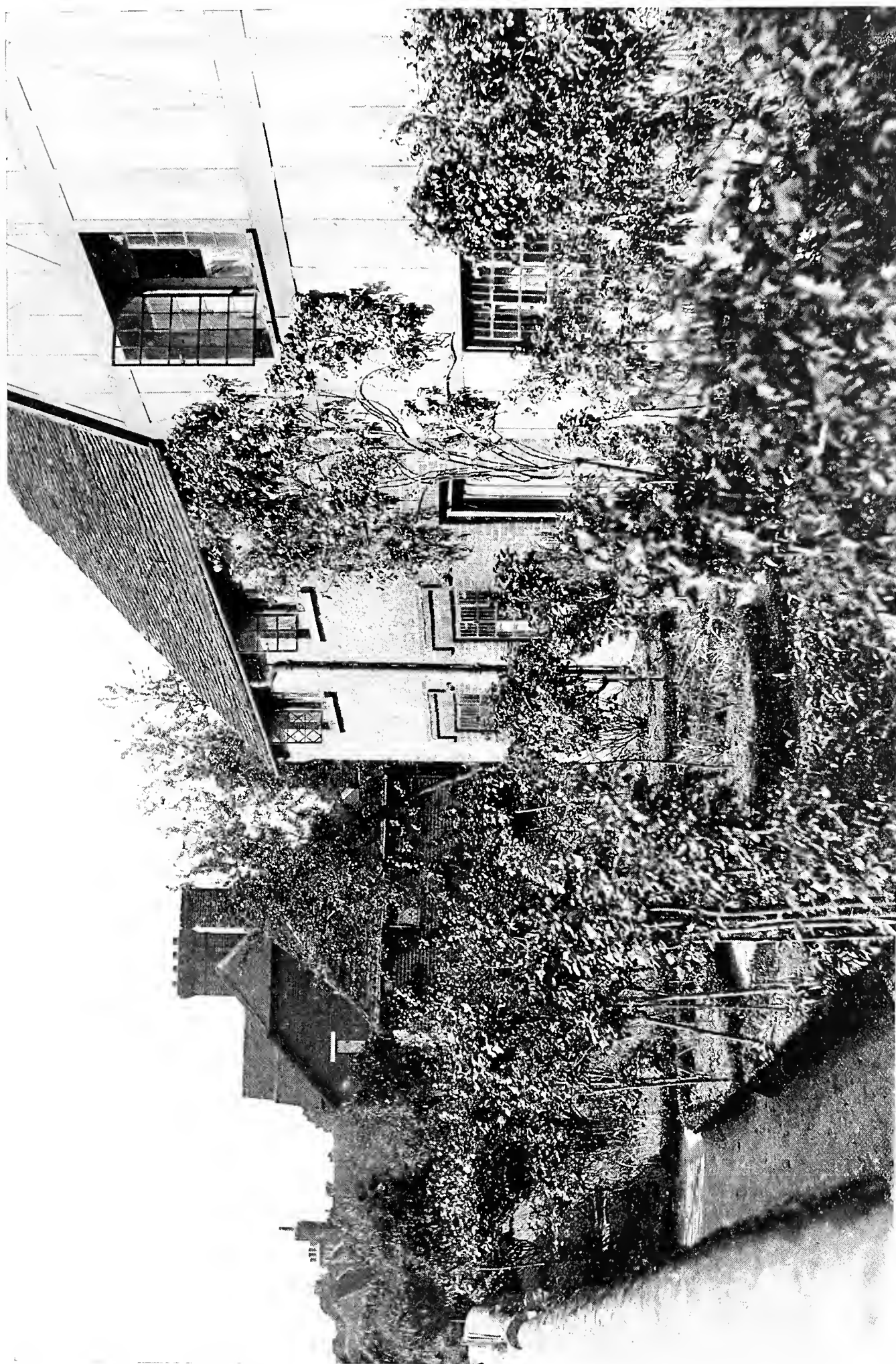


AN OLD HOUSE FRONT

AT SHREWSBURY



ON THE DAWLISH ROAD, NEAR EXETER



A ROADSIDE GARDEN

WHITE PARRISH, WILTSHIRE

BELLEFONTAINE

AT LENOX, MASSACHUSETTS.

Designed by Carrère & Hastings, Architects.

II.

THAT part of Bellefontaine dealt with in the January number of *HOUSE AND GARDEN* was the southern side of the building and the avenues and terraces there facing the open country. We entered the grounds by one of the poplar avenues that extend laterally from each end of the house. The southern outlook of the place is not, however, usually seen by the visitor, for the entrance most frequently used is a drive which leaves the road from the village, before one comes to the house itself, and leads into the woods. At the road is no mark or suggestion of the monu-

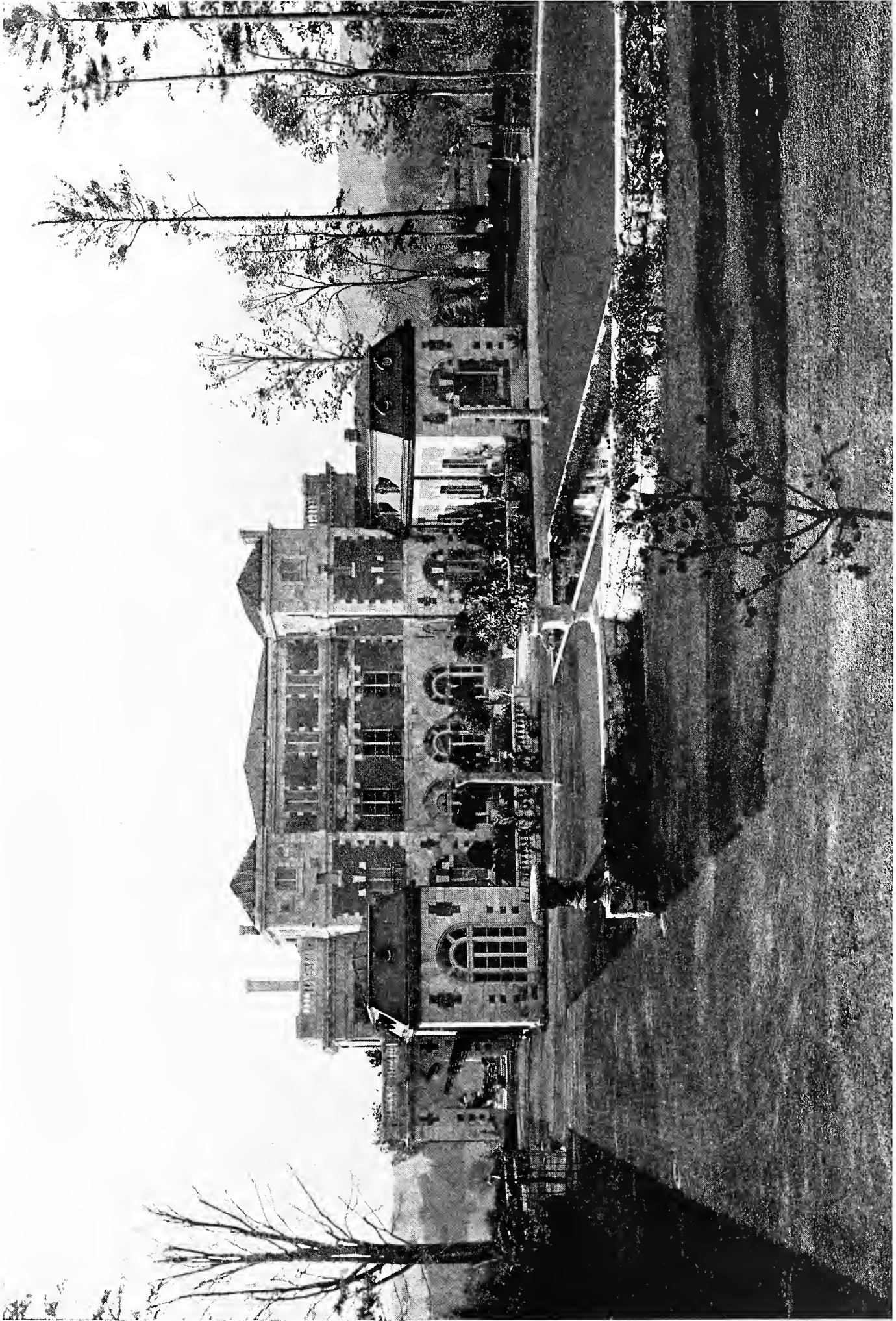
mental place beyond, and the drive enters the shady gloom of a seeming wilderness. A grotesque figure of marble grinning here and there from behind a dark hemlock, a statue or pergola before a hemicycle of pines are the only traces of a designed effect which, in a moment, comes completely into view. A turn of the drive suddenly discloses the house. Two rough stone posts, half-covered with vines, are passed, and then before one is spread a large forecourt—the house across its distant end.

This great opening of sunken lawn, bounded first by drives and then by dense forest trees, is the most impressive feature of Bellefontaine. Without it, with what poor effect the mansion would have been huddled against the wood, where now the brick and marble walls cast their shadows over a smooth turf and are reflected in the waters of a pool. A



A DRIVE

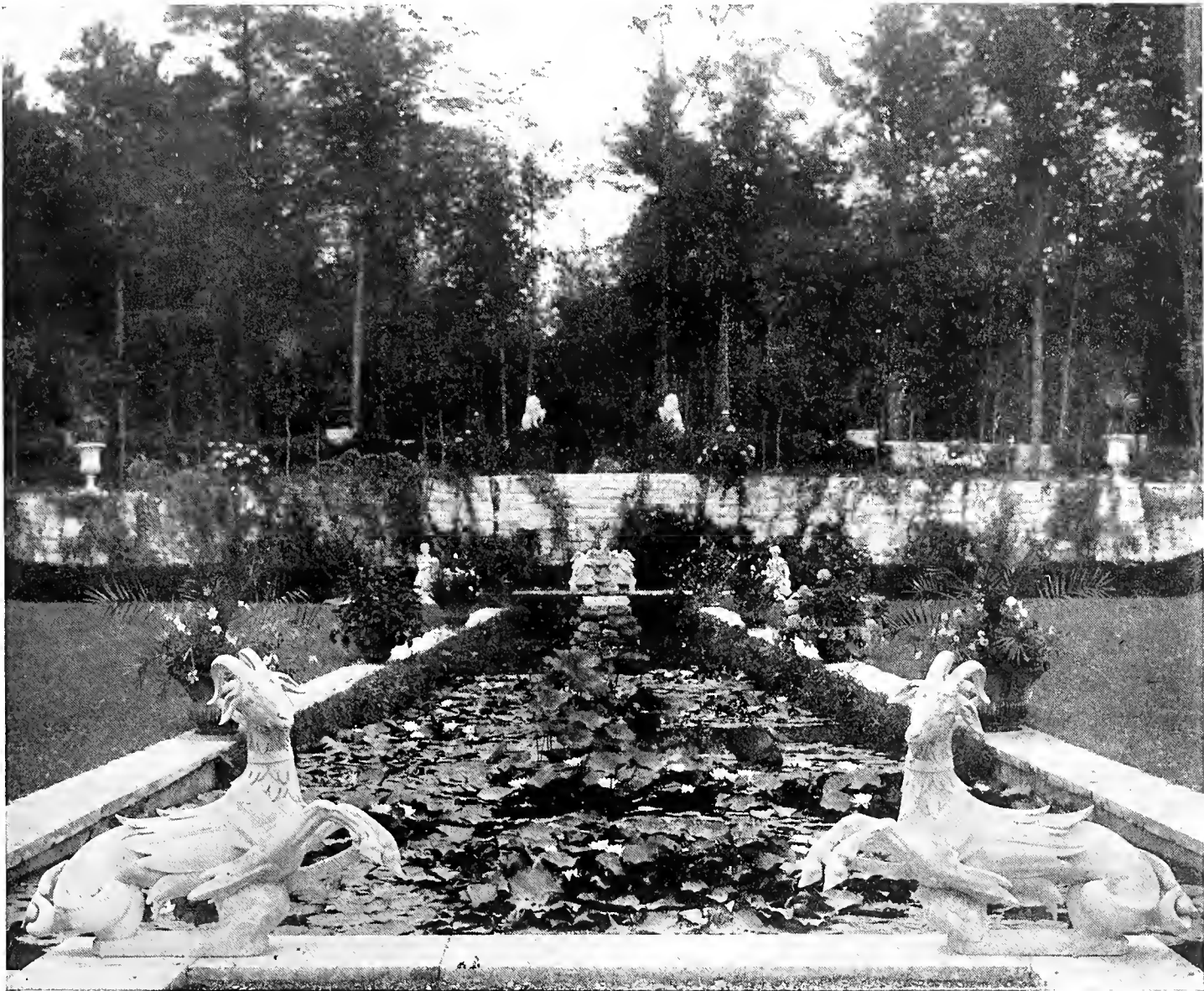
BELLEFONTAINE



BELLEFONTAINE FROM THE NORTH

straight edge of wood reaching across the hillside was found on the original site. The house was placed at the centre of this line and a wide outlook toward the south obtained. On the north the trees were cut away for the forecourt. As the ground to be used was a hillside the question of grades was first to be solved. The slope from the entrance of the court to the entrance of the

above the water at the upper end than at the south or house end. This height between the water and the grass and the strong border of white curbing separating the two is perhaps the one crudity in the whole effect. It is somewhat veiled, however, by the grass and vines which spring from the joints of the stonework. At the northern end, where there is the greatest difference between the

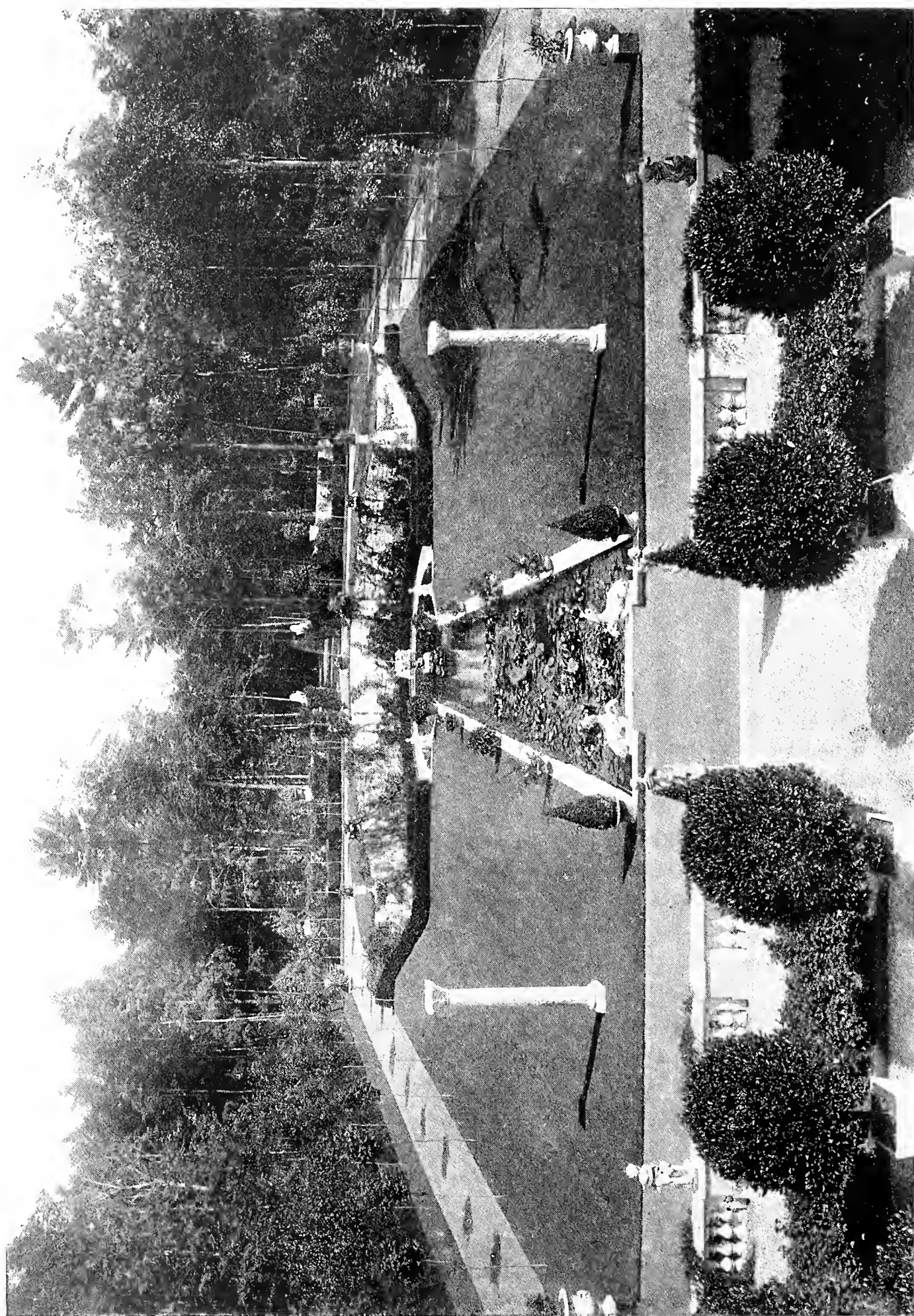


THE POOL

BELLEFONTAINE

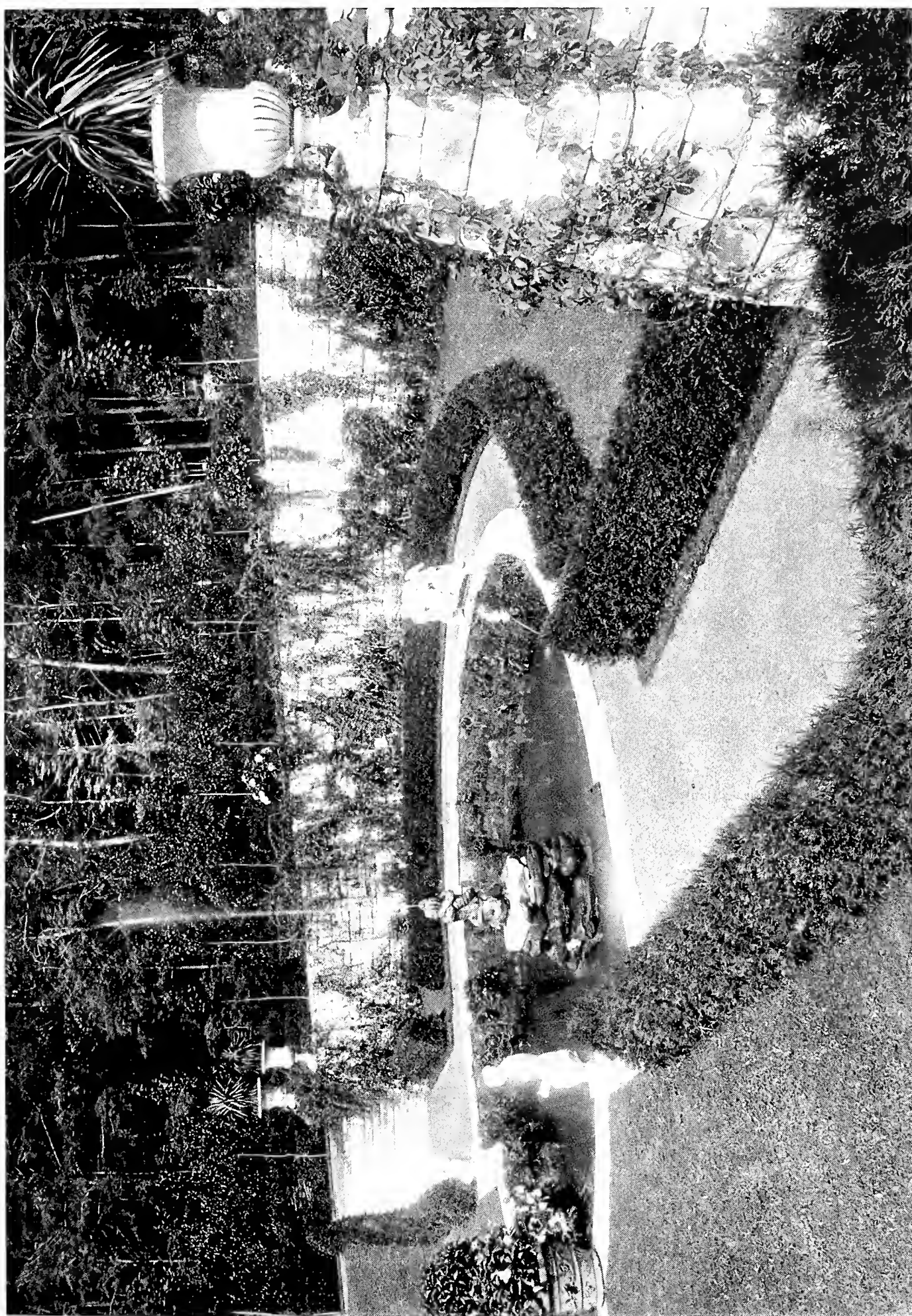
house was a natural one for the drive and was kept unchanged for that purpose. The lawn occupying the central space and containing the pool is not level, as at first seems, but it declines slightly as the drive does, and is thus a medium between the slope at the extreme sides of the forecourt and the surface of the water in the centre. The retaining walls of the pool extend much higher

level of the lawn and the drive, a heavily battered retaining wall provides a strong ending feature of the design. Two low hedges cross the lawn in front of the wall and, dividing, one skirts the semicircular margin of the pool. Creeping vines trail over the whole height of this high wall and save from complete interruption the green background of Nature upon which the design has been placed.



BELLEFONTAINE

THE FORECOURT FROM THE HOUSE



THE HEAD OF THE POOL

BELLEFONTAINE



STEPS TO A FLOWER GARDEN

BELLEFONTAINE

In sobriety and dignity lies the beauty of this quiet atrium giving impressiveness to the house. The forest trees enclose and shelter it in a way that no planted hedges or built walls could attain; and so well related to the house was the open space that, once the trees were cleared, little was needed to heighten the effect. A wise restraint governed the work and a quiet reserve now pervades the result. No tumult of flowers disturbs the peaceful contemplation of the Egyptian lotus in the pool. Architectural ornaments are few, and effects have not been gained determinedly, but have been left to arrive by yearly growth. To more fully appreciate what has and has not been done,

we have only to imagine how calamitous would have been the careless use of hedges, beds of flowers and labyrinthine walks, and to feel the serenity of the quiet lawn and the easy modulation to the forest made by the rows of young trees. The future growth of these planted avenues means a steady improvement of the present ensemble. The wall at the extreme end containing the gateway is half obscured by creeping vines; and sculpture has been used wisely to emphasize salient points. The two marble shafts, recently placed in the centre of the lawn, are the only restless objects in the scene; and this by virtue of their inappropriate placing. They mar the wide basin of grass and should



THE EAST FLOWER GARDEN FROM THE PORTICO

BELLEFONTAINE



THE EAST AVENUE

have been set, if used at all, at the extreme corners of the lawn.

The perfect symmetry of the forecourt garden is an echo of the balanced arrangement of the house itself. Two principal wings of the building project on this side and enclose a small court included within the

precincts of the house by a stone balustrade. The surface of this space is of small stone chips, upon which are two beds of flowers following on each side the walls of the wings, then turning and paralleling the balustrade (see the plan illustrated in the January number of *HOUSE AND GARDEN*). Prim bay



THE EAST END OF THE HOUSE

BELLEFONTAINE

trees, are placed at equal intervals before three wide windows at the centre of the façade. The fact that these windows open from the main corridor of the house and not from a living-room defines the true importance of the forecourt garden compared with other

surroundings at Bellefontaine. The flower gardens at each end of the house, the terrace upon the south and the outlook in that direction are the most cherished views, and the garden on the north is considered a mere formal approach to the house, and is enjoyed

from the windows of not a single important room.

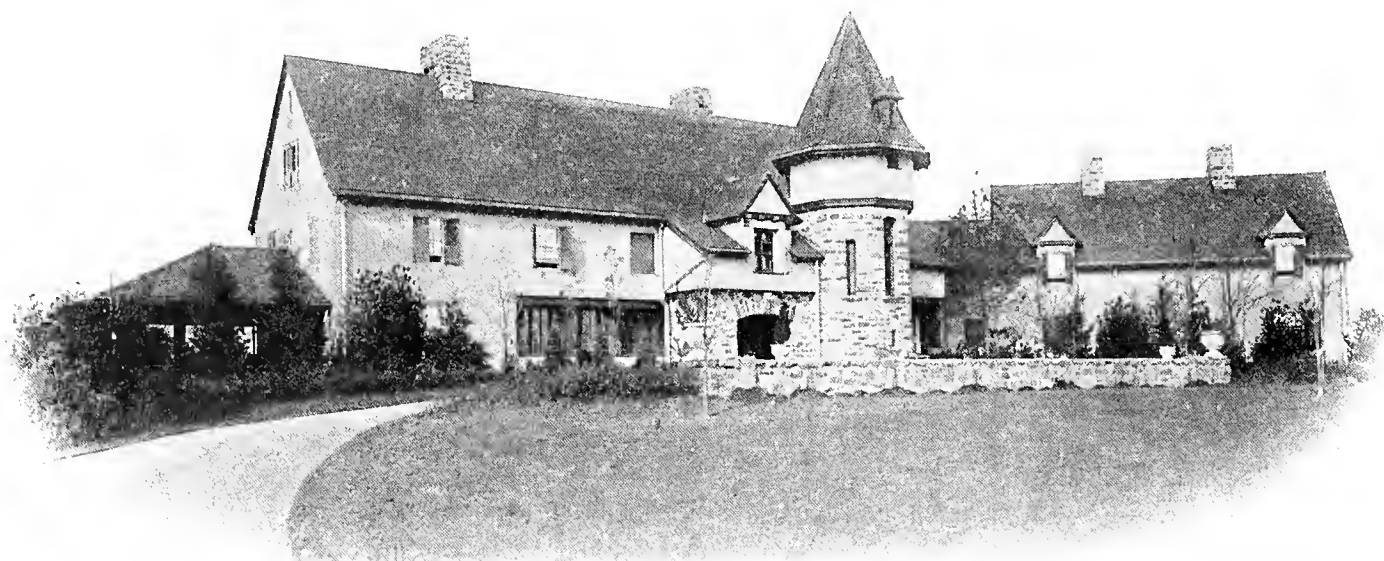
A *salon*, library and dining-room are ranged in a suite along the south front of the house, and the wings extending northward accommodate the entrance and smoking-room on the east and the kitchens upon the west. The inconspicuous entrance, without porte cochère and protected only by a *marquise*, its removed position upon the outside of the east wing, preserves the seclusion of the living-rooms. According with the French Renaissance of the exterior all the details within have been carefully studied. Corridors, floored with marble tiles, are walled with stone below a frieze decorated by painted rural scenes, and stairways are of wrought bronze. The sides of the principal rooms bear elaborate wainscots and pilasters reaching to high and richly ornamented ceilings. All the furniture consists of beautiful pieces collected by an owner who yearly spends several months abroad. Though a great and interesting variety, it is entirely congruous to its surroundings.

The artistic success of Bellefontaine is largely due to the intelligent use of materials. The exterior walls are laid with a local brick,

made at Pittsfield, of a warm color, slightly more pinkish than the familiar Haverstraw product. The stone which appears in great quantity in each façade is a marble from the quarries at Lee. In order to save expense the second quality pieces were used,—the “short ends” and “rough backs,”—and their irregular tones of color have happily saved the house from the formal stiffness usual whenever marble is employed. The views of steps and walls illustrated in this and our preceding article show how well the unstraightened pieces have lent themselves to the desired end. Upon the house a rough texture has been obtained by coarse tooling; and balusters have been put in place, showing all the marks of the lathe. In the outlying walls little mortar has been used, and the lower surfaces of copings have been left entirely rough so that the rectilinear features of the architecture have been softened to harmonize with the freedom of the planting. From these details about the house to the Florentine well in the centre of the vegetable garden near the road, close examination finds a perfect sympathy between these inanimate objects and their surroundings.



THE PERGOLA, BELLEFONTAINE



A HOUSE AT BERNARDSVILLE, NEW JERSEY

A HOUSE AT BERNARDSVILLE,
NEW JERSEY

Designed by Lord, Hewlett & Hull, Architects.

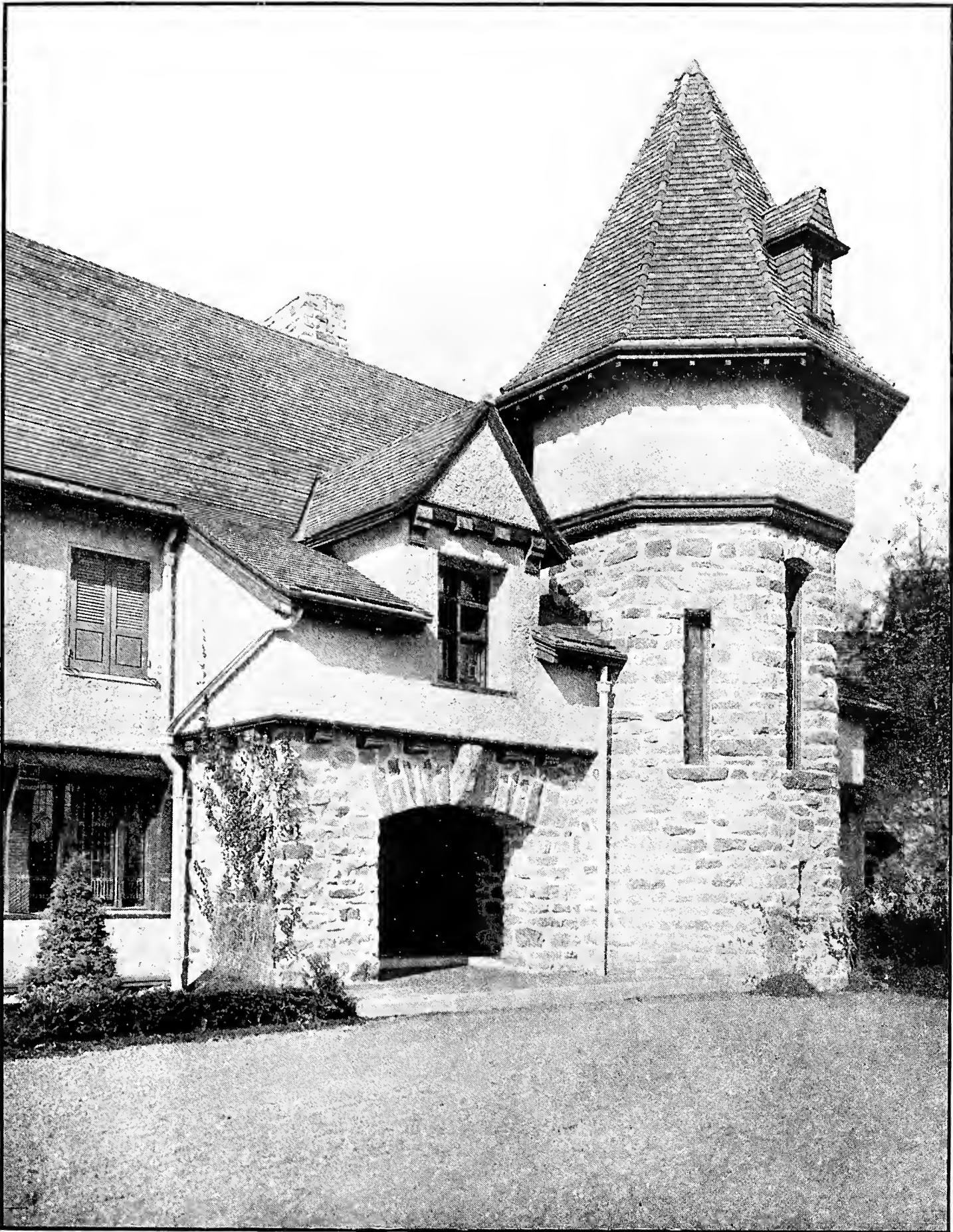
IN the valley which extends southward from the village of Mendham in northern New Jersey this unpretentious house stands upon a hillock of considerable size. Beautiful views of the valley lie upon the north and the south, but a barrier of hillsides rises

above the house upon the east and west and gives an agreeable variety to the surrounding horizons. The two sections of the house are set at an angle with each other, and the exterior or northwestern side has been the rather unusual choice for the living portion of the place. The principal rooms open there upon a porch and a terrace. Within the angle of the wings on the southeastern side is



A HOUSE AT BERNARDSVILLE

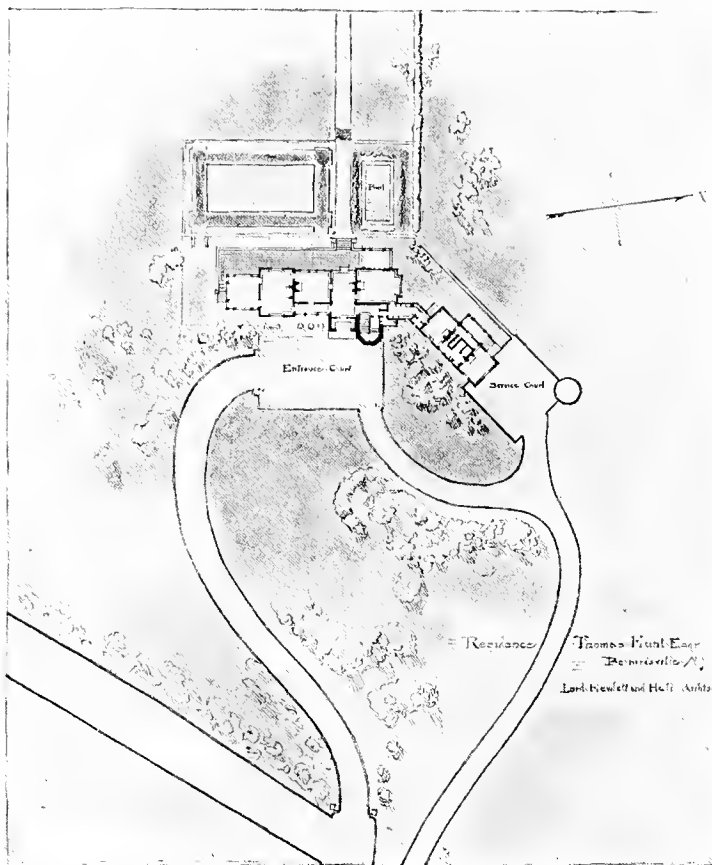
FROM THE SOUTHEAST



THE ENTRANCE

A HOUSE AT BERNARDSVILLE

the main entrance, protected by a low archway in a section of the house attached to a tower. An irregular and picturesque treatment was suited to the summit of the knoll and has caused the avoidance of any marked formality in the disposition of the gardens and terraces. The planting and the arrangement of the drives have been entirely free and unconventional. A pool on the west side of the house is overlooked from the terrace of the dining-



room. In adding an interest to the environs it also serves as a reservoir for the water supply of the gardens and stables. These are situated on the slope of the hill northeast of the house and at a level about thirty-five feet below the platform on which the main building rests.

Rubble stone, laid with very wide full joints, is the material of the tower and outlying masonry; stucco covers the upper walls of the house; and the roof

THE PLAN



THE LIBRARY

A HOUSE AT BERNARDSVILLE

is of red flat tiles. All the wood portions are bold in shape, and are dressed only by the adze. Inside the details have been broadly designed, and they are quiet and unobtrusive.

architects have followed the type of the farm-houses of Normandy. If from these the present building may be removed on account of its rigid aspect, it is due to an inevitable



THE HALL

A HOUSE AT BERNARDSVILLE

There is an absence of trifling mouldings and of restless paneling. Rudely vigorous mantels and a wainscot of rough-hewn and unvarnished chestnut running from floor to ceiling give an ingenuous simplicity to the interior. In the general character of the design the

defect of newness and one that is surely to pass with age. Outlines becoming pliant with time, and tones of color softening by the weather, will make the house more and more akin to those picturesque old French farmsteads which have influenced its shape and form.



House & Garden

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THE hopeful part of the proposed plans for the improvement of Washington is that they are already far on the way to realization. The opinion of the Park Commission has been sought and followed in connection with undertakings already provided for. The new buildings for the Departments of Agriculture, of State and of Justice, the Union Station for the railroads and the abolition of grade crossings throughout the City, the Municipal Hospital, the railroad and highway bridges across the Potomac, the Grant, Sherman and Sheridan memorials :— all these take their place in the new scheme. Other projects are about to be authorized, such as office buildings for the House and for the Senate, a hall of records, the improvement of the Anacostia flats and the War College. These also will carry into effect parts of the comprehensive plan which was put before the public on January 15th. While the design has been prepared under the direction of the Senate Committee on the District of Columbia, the cooperation of other Congressional committees and of members of the Cabinet has brought about a harmony of action and a constant endeavor to provide for existing and well-recognized needs.

The chief benefit of the designers' work recently completed for the Capital City is the

opportunity given to initiate public undertakings so that they may each finally come into a complete and harmonious unity. Such a foresight has always characterized well-managed private institutions and the public corporation should possess it no less. That the wisdom of these preconceived designs for our cities has become appreciated is shown by the suggestion just made to Mayor Low by the Fine Arts Federation of New York City. That society has urged that a commission of distinguished experts be appointed to mature a plan for the future development of New York in much the same manner that has made it possible for Washington to become one of the most monumental cities of the world.

There seems to be a popular notion that these schemes are devised by architects solely to dazzle the public with the huge figure of cost their immediate execution would involve. It would not only be impossible to execute at once such a vast project in its entirety, but there is little to be gained by such despatch. It would mean useless extravagance. From the point of view of wise economy the design should be carried into execution piece by piece, as needs for the different sections arise and as funds are forthcoming to carry them out. In the case of Washington all the circumstances are most fortunate. Particular sections of the work have been left to the care of certain influential persons who have willingly set their hearts upon the ultimate completion of the several features. Senator Cullom is fathering the Lincoln section and we can trust Mr. Root to see that the scheme for the War College may not lapse. The railroads have aided the cause by agreeing to deflect a portion of their tracks and to put underground the remainder. The opinion of the Commission has been heeded in fixing the location of the new Union Station at an appropriate point. The preparation and exhibition of the admirable scheme, its position in our mind's eye, is a large part of the task done. The fulfilment should now be a comparatively easy matter making an interesting growth during the next fifteen or twenty years.



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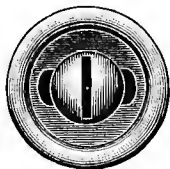
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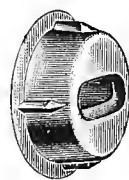
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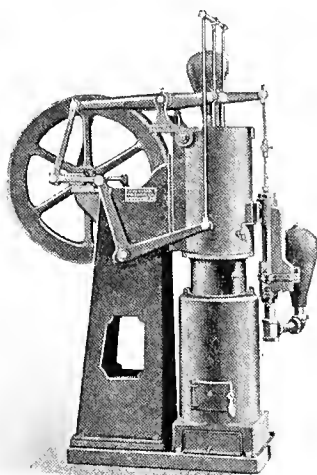
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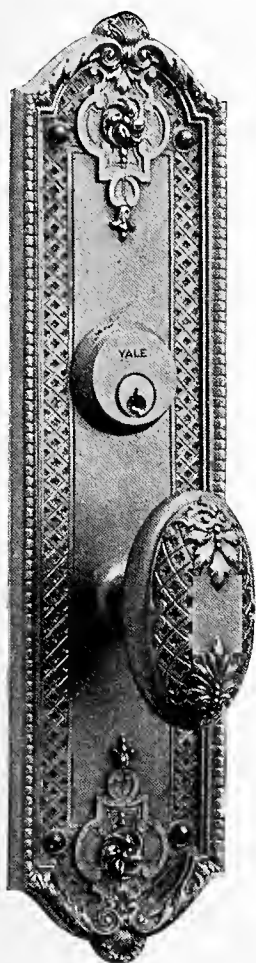


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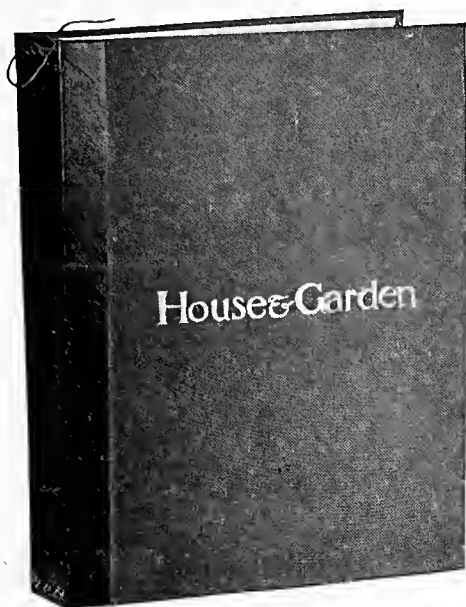
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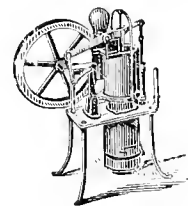
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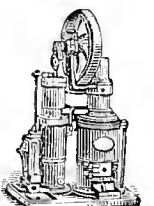
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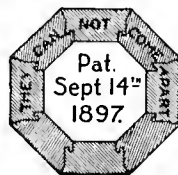
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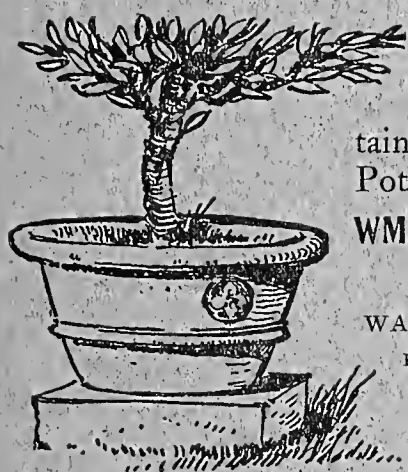


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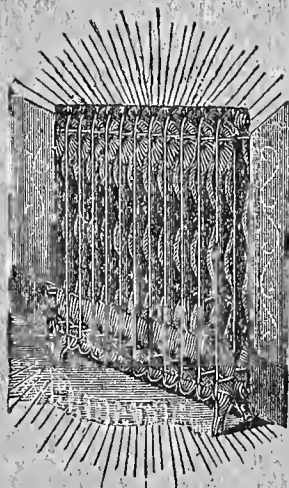


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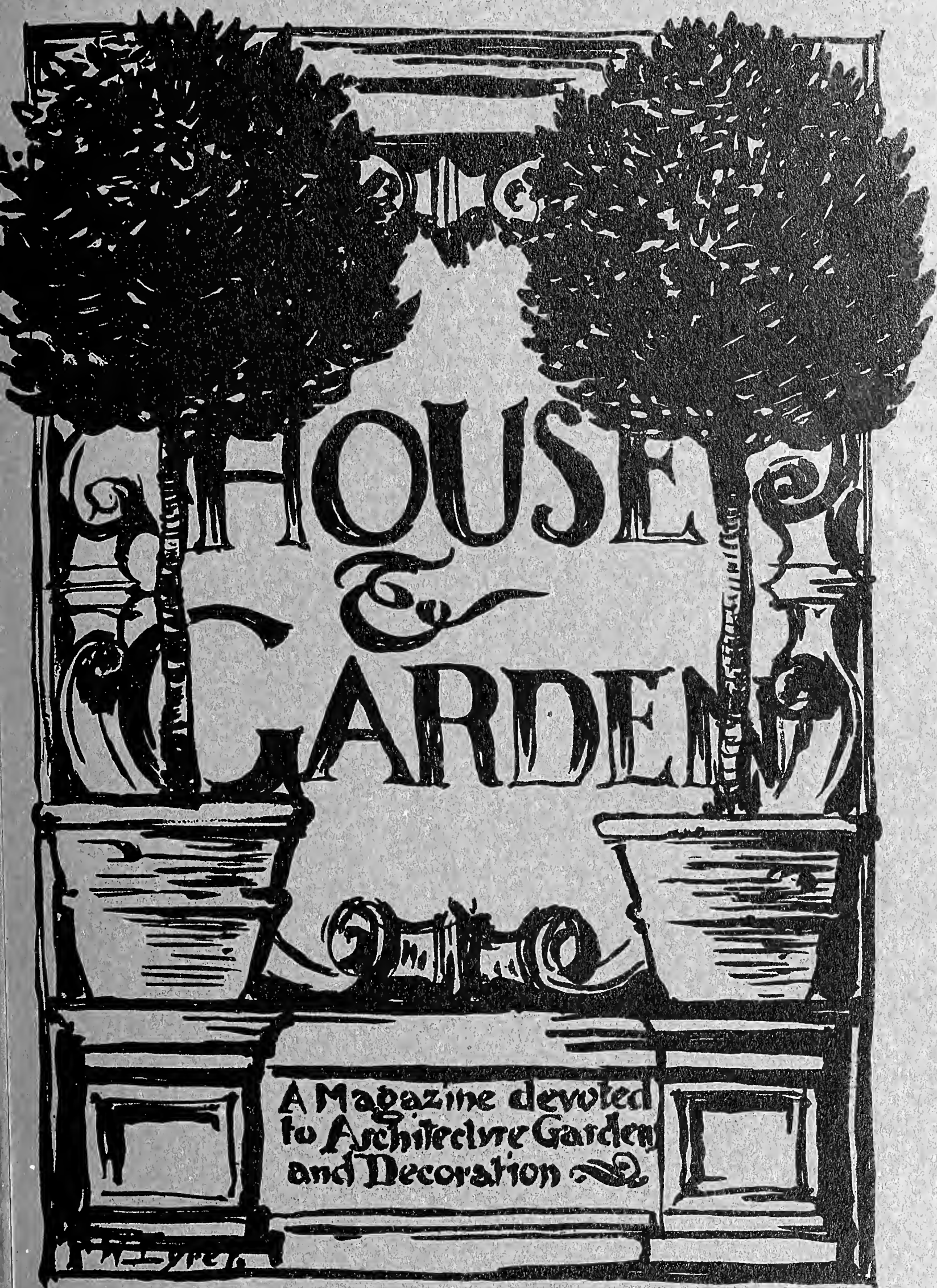
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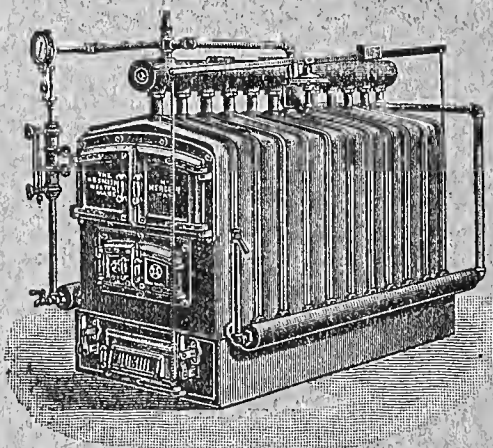
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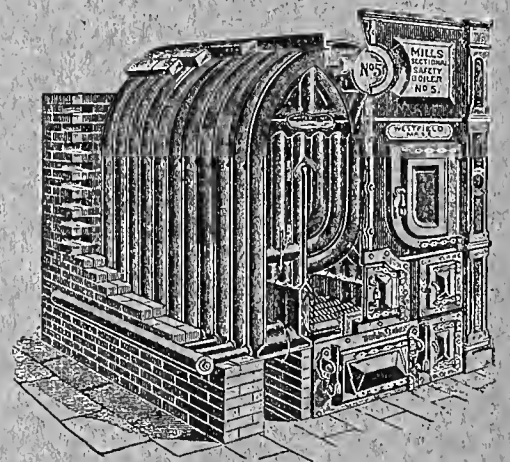
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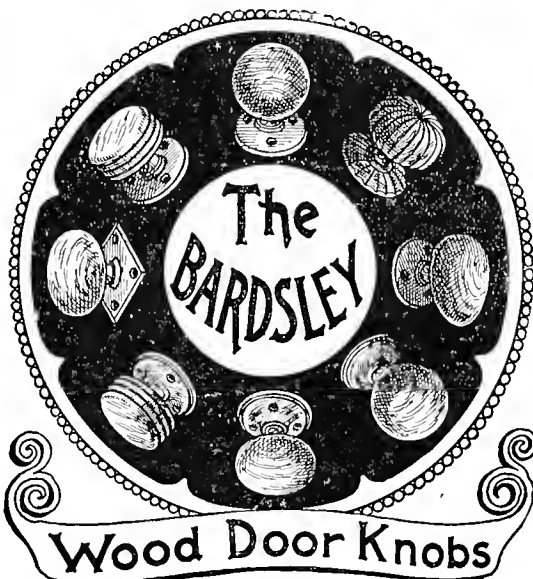
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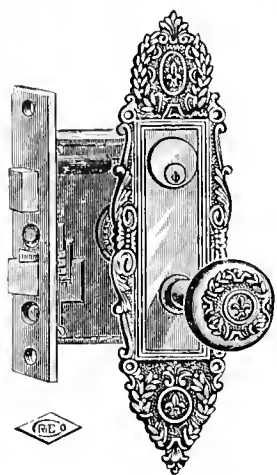
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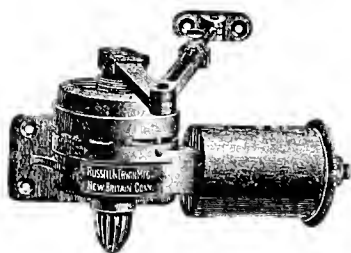
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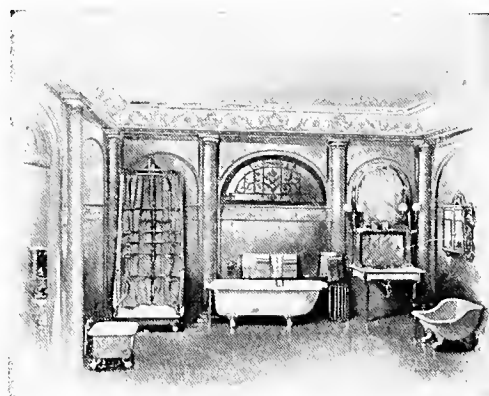
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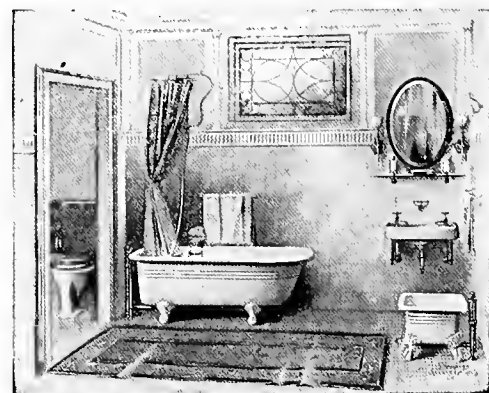
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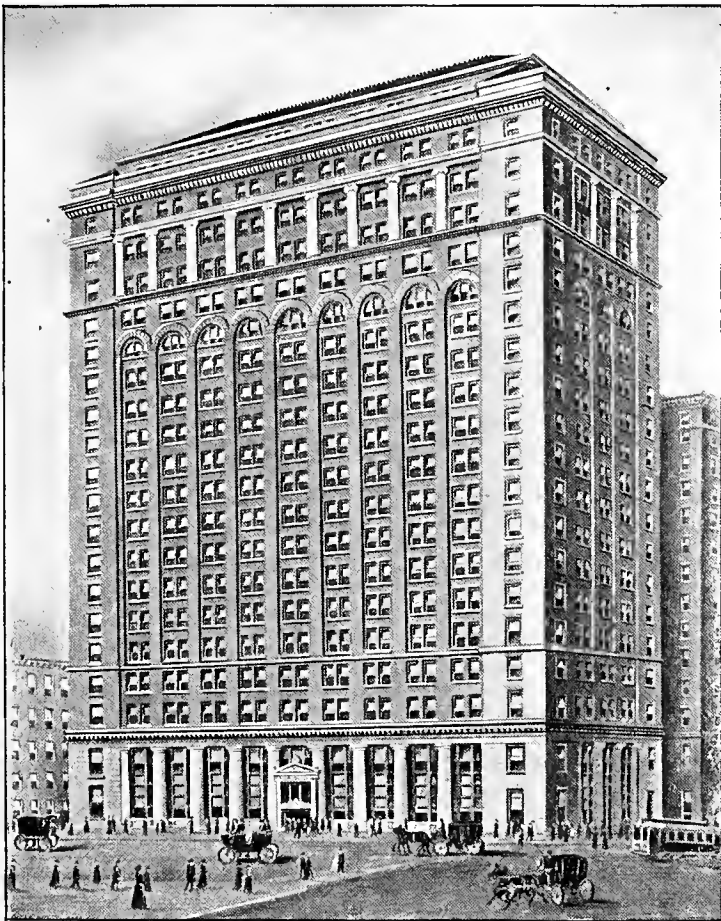
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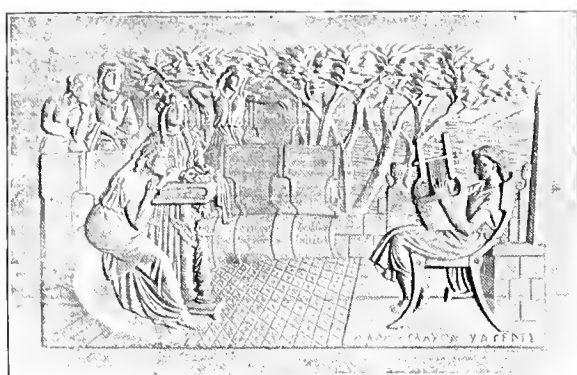
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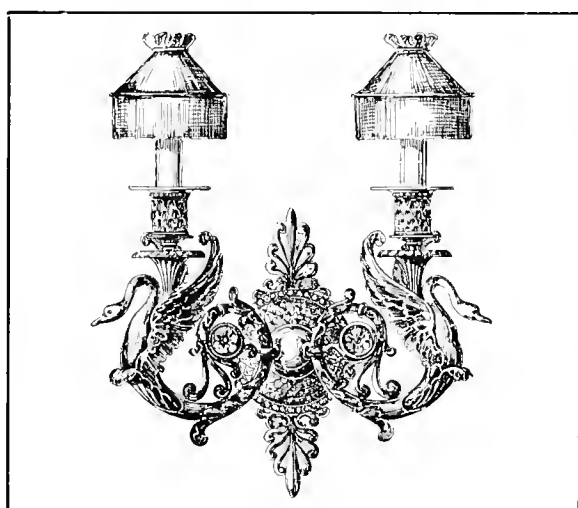


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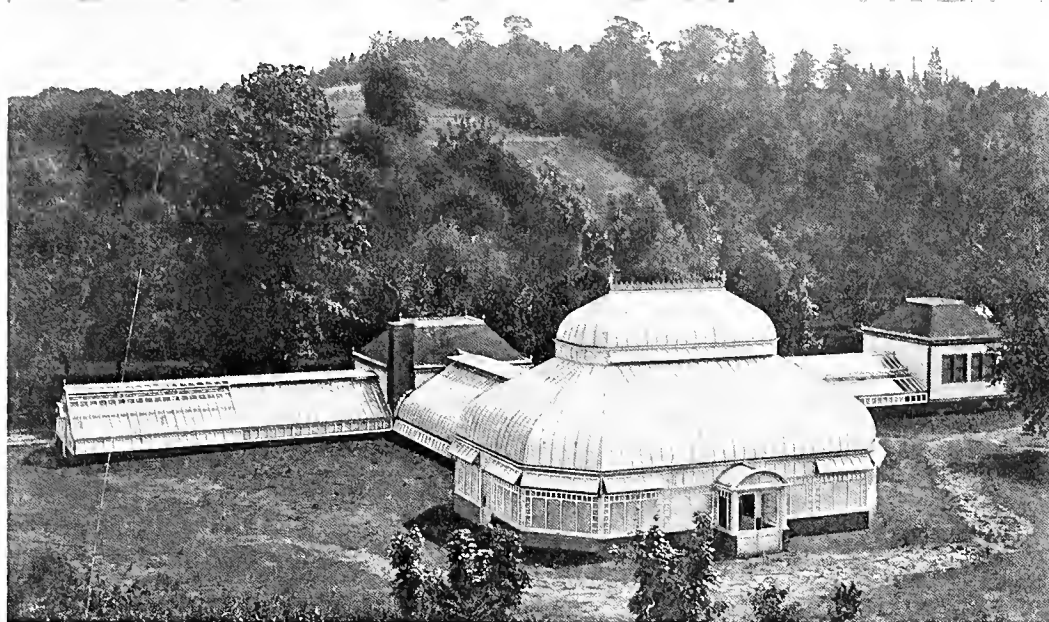
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Contents for March

	PAGE
JAPANESE TEMPLE GARDENS, by RALPH ADAMS CRAM. <i>Illustrated,</i>	77
POLARITY IN NATURE AND ART, by CLAUDE BRAGDON. <i>Illustrated by the Author,</i>	91
BYWAYS OF ENGLAND. <i>Illustrations,</i>	96
THE RELATION OF MURAL PAINTING TO ARCHITECTURE, by KENYON COX.	98
AN INTERESTING ALTERATION, 2123 Spruce Street, Philadelphia, designed by Wilson Eyre, Architect. <i>Illustrated,</i>	101
THE ART OF COLLECTING HOUSEHOLD FURNITURE, by E. N. VALLANDIGHAM <i>Illustrated,</i>	106
TYROLESE ARCHITECTURE (<i>Part III, Feudal</i>), by HERBERT C. WISE. <i>Illustrated,</i>	110
NOTES AND REVIEWS.	126



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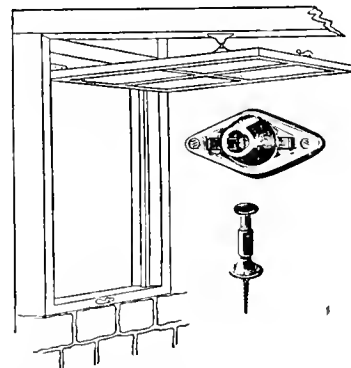
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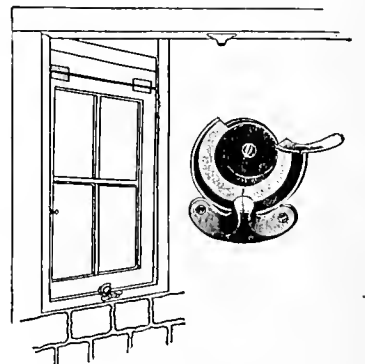
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House & Garden

Vol. II

MARCH, 1902

No. 3

JAPANESE TEMPLE GARDENS

IN the dim gardens of mouldering Buddhist temples, one may still find, as in the temples themselves, hints of the old Japan. The sacred tradition that has preserved the original forms of eighth century architecture through a long sequence of structures, built only to be consumed and again restored, has held as well in the surrounding gardens; and though nothing may remain of the ancient originals, save only the fantastic stones, far-sought and eagerly treasured, the curves of the walks are still the same, the placing of the shrubs and flowers and gnarled dwarf trees unchanged, and even the patterns traced in the silver sand are the patterns of long ago.

They are very fascinating, these temple gardens, and they have a character wonderful in its diversity. Sometimes they are nothing more than the necessary forecourts of minor temples; a terrace, a few steps, a lantern or two, a grinning stone dog, or benignant image of Jizō, "The Helper," and perhaps a crabbed tree or bush of scented box. Then they become solemn and ghostly graveyards, crowded with ranks of gray and moss-covered monuments of strangely beautiful shapes, leaning, all of them, from the jostling of endless earth-

quakes; the newer ones,—yes, and some of those hoary with antiquity,—blurred by the thin smoke of burning incense-sticks and fronted by sections of bamboo holding freshly cut flowers. Again they blossom into the full glory of the stately and hieratic garden, the domain of nature glorified by consummate art,

where rocks and sand and water, lotus, iris, peony, azalea and the royal fuji, box and maple, pine and cherry are all blended into one wonderful setting for the scarlet temple that flames in the midst, against its background of forest or serrated hill.

Yet whatever its estate, the temple garden is less a pleasance than a framework; it is, like every good



IN THE FOREST OF NARA

garden, a modulation from pure nature to pure art. In the old temple of Horenji at Shiogama, you may see how finely everything leads up to the lofty shrine; and the effect must have been finer yet when the temple was still Buddhist, and before the Shinto priests, who now control it, raised the rather clumsy torii at the foot of the dizzy flight of steps. Again at Nara, rocks, box, lotus, palm and pine are all placed just where they will do most honour to the temple itself, and together with this, compose into the picture that is perfect and complete.



KURODANI GRAVES

KYŌTŌ

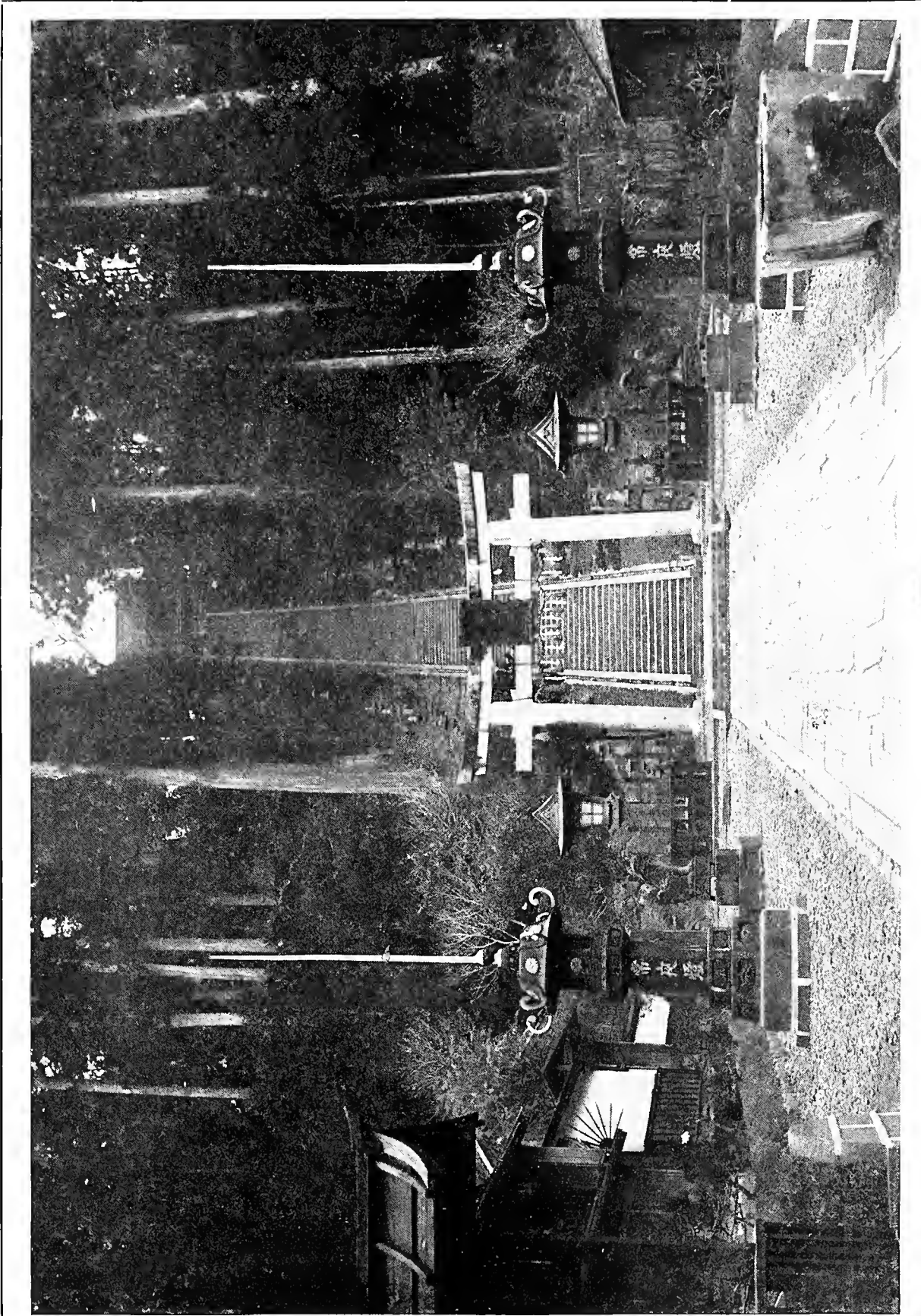
A picture always, you must note: line, texture, form and colour, all are duly and delicately considered, and a space of garden is composed with all the laborious study that goes to the making of a screen or *kakimono*. How perfectly the whole thing composes in the Narita steps, the curve of the bridge, the sharp angle of the steps, the convolutions of volcanic rock, the clean cleavages of the slate chased with exquisite ideographs; and in colour, silver-gray slate stones and lichen granite, green bronze and the deeper green of cryptomeria leaves. Or



STEPS AT NARITA

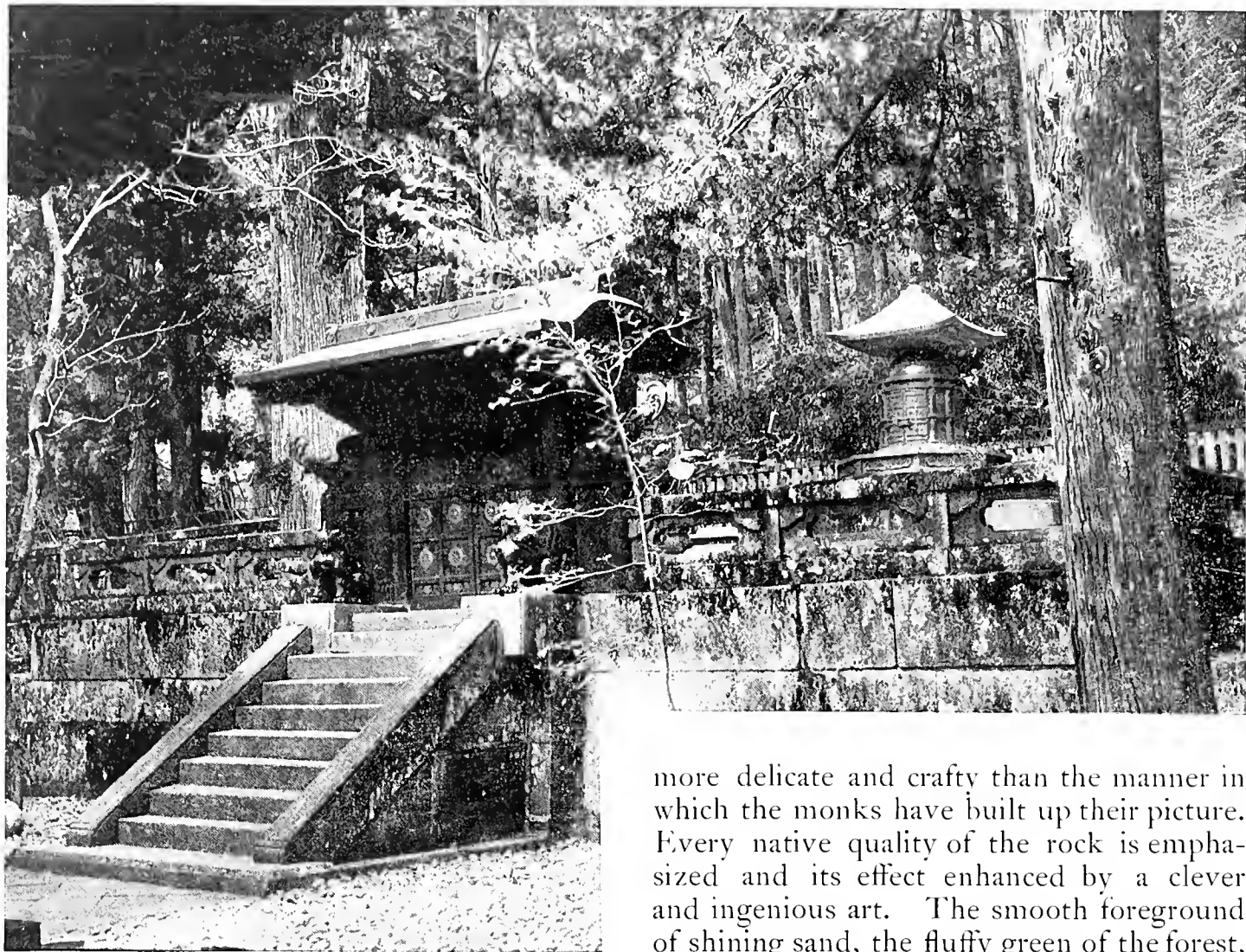
again at the shrines of Ueno, consider how wisely the garden itself is reduced to the simplest forms, gravel and flat stones and a few big bronze lanterns. Here the cherry trees are supreme and they are given full sway: flowers and shrubs are banished, for they are unnecessary. The great trees do their full work: yet this is good gardening, and quite as legitimate as would be the case were all the flowers of the earth brought into requisition.

A Japanese gardener can work with anything—or almost nothing: There is a legend of a



PROVINCE OF RIKUZEN

AT SHIOGAMA



THE TOMB OF IYEYASU, NIKKŌ

royal garden, built long ago by a man who gave ten years of his life and half the wealth of a great *daimyo* to the task, a garden that appealed to every varying emotion of the soul, that worked its will like a great symphony, where only one of the products of the earth was employed, and that was simply and only—rocks. Even now these are sought carefully from every province, and some curious or beautiful specimen is hoarded like a jewel. How valuable, indeed how quite indispensable these may be, can be seen, though imperfectly, from almost any of the illustrations of this article, particularly from those of Ishi-yama-dera. The name of this ancient temple on Lake Biwa means simply, "The Temple of the Rocky Mountain" for there is a curious outcropping here of black and contorted basalt, and every crag has been used as part of a scheme of gardening.

It would be hard to imagine anything

more delicate and crafty than the manner in which the monks have built up their picture. Every native quality of the rock is emphasized and its effect enhanced by a clever and ingenious art. The smooth foreground of shining sand, the fluffy green of the forest, the soft verdure of delicate shrubs sprouting from rocky crevices, the smooth velvet of *hinoki* thatch and weathered wood, the clean angles of chiselled stone, all these things are handled like the colours of a painter's palette; they are placed with discretion, fused



THE GARDEN OF KŌSHŌJI



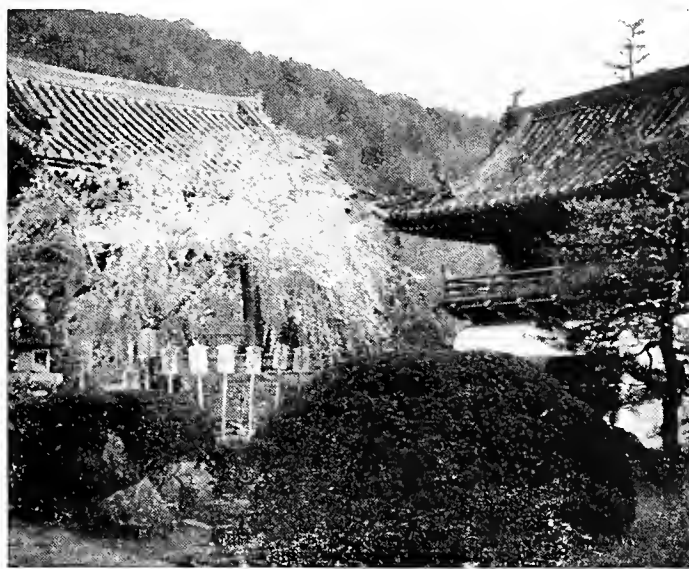
LOTUS, PALM AND PINE

and blended, and finally composed into a perfectly united whole.

Almost every temple garden has a peculiar quality, some one feature that is dominant and sets the keynote, as it were. Here at Ishiyama, it is volcanic rock; at Uyeno, it is the cherry; at Kamakura, the lotus; at Nara, the purple fuji; at Nikkō, druidic cryptomeria guard the shrines of the dead Shoguns. At the Nishi Hongwanji in Kōyō again, water seems almost to play the principal part, while at the gardens of the Ginkakuji it is white sand wrought into mounds and delicate pavement patterns. Here is "the platform of sil-

ver sand," and beyond it, "the mound that looks toward the moon," consecrated by the lordly Yoshimasa and still heaped as for the great Shogun's enthronement, though four centuries and more have passed since "he became one with the gods."

Whatever the keynote it holds throughout the composition, as at Shiogama, the tall gray masts of the cryptomeria are echoed and emphasized by the vanishing lines of the enormous steps, the slim verticals of the white staffs and the uprights of the granite torii. Shinto is a barbarous anachronism, it is to Buddhism about what Mormonism is to Christianity, but it



A LITTLE FORECOURT



THE SHRINES OF UYENO

produced one triumph of art, this same consummate form of the torii. It is the noblest and simplest gateway ever devised and it adds a crowning touch to many a temple garden,

though it is the sign of religious and philosophical retrogression. When scores of these vermilion torii are grouped together over gray stone steps, in the midst of bronze-



THE GARDENS OF ISHI-YAMA



THE TEMPLE OF THE ROCKY MOUNTAIN

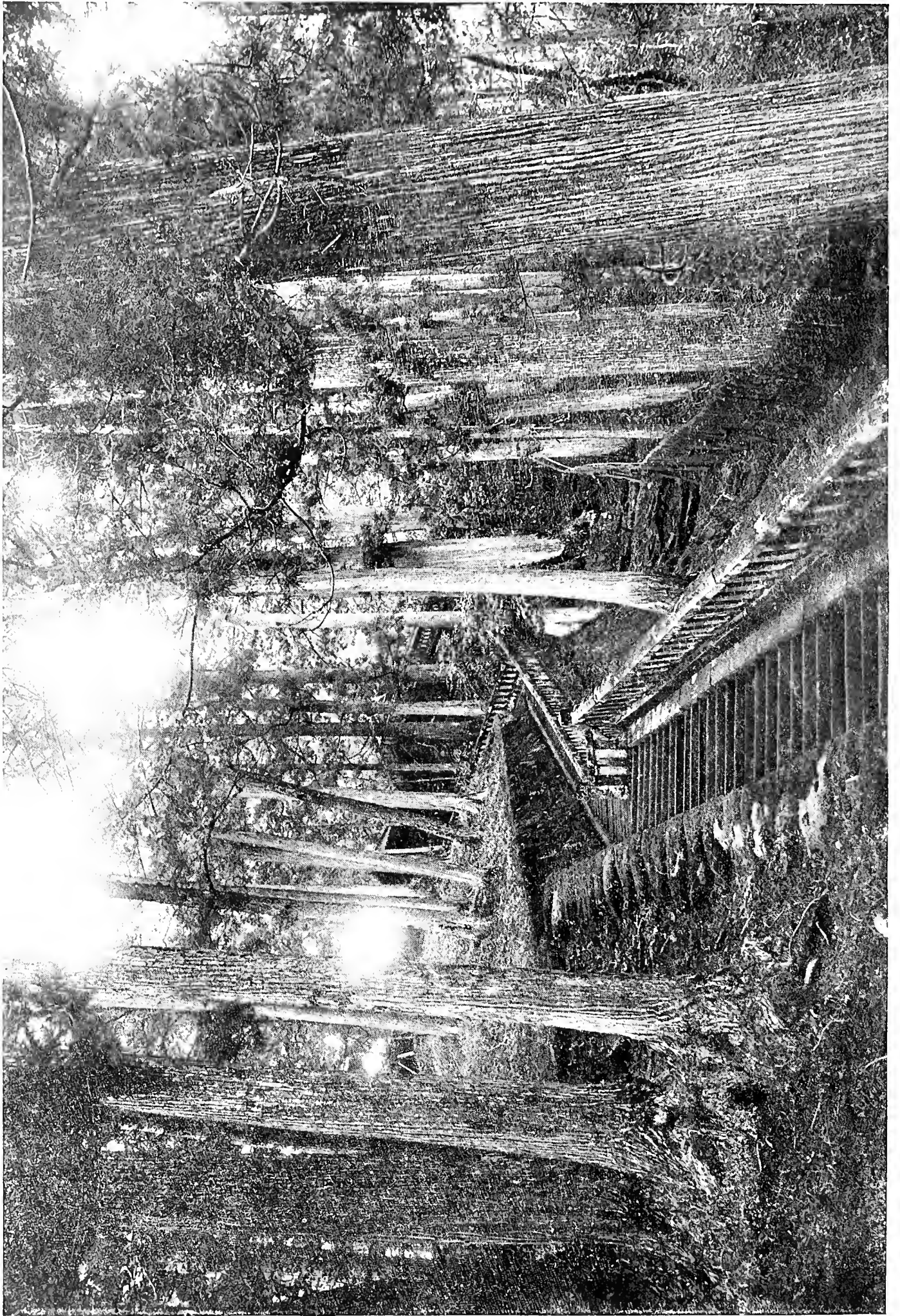
green cryptomeria, the effect is one of splendid colour hardly to be matched elsewhere.

It is not around the great and famous temples that one finds the most alluring gardens, but in out-of-the-way spots, in forgotten valleys where foreign feet have seldom trod. Across the river from Uji I found one such garden in a hill temple I had never heard named before,—Kōshōji. There is a river road up to where the tumbling Ujigawa bursts through a cleft in the hills; and



IN THE MITO GARDEN, TŌKYŌ

following this, one suddenly comes upon a long straight path, cut through dense black trees, rising steeply from the river, and closed at the summit by a gleaming white Korean gateway. As one approaches, nothing is visible but this same gate with its arched opening in the white plastered base, surmounted by the intricate bracketing of its curved roof. Long, plastered walls reach away on either hand, and above, rise low curving roofs of gray-green tile; and



DRUIDIC CRYPTOMERIA



IN A GARDEN

AT KÔBE

in April, as when I saw it, a great cloud of pink vapour poised over all, the amazing blossoming of an ancient cherry.

One comes out from under the white arch with a sudden catching of the breath. It is not a large temple, indeed it is hardly more than a toy, one of those still little monasteries asleep in a forgotten eddy of the turbulent river of "progress;" but it is the more charming for all that. The Nishi and Higashi Hongwanji temples of Kyôto, the almost terrifying monster belonging to



AT THE NISHI HONGWANJI, KYÔTÔ

the latter sect in Nagoya, the complex and amazingly elaborate Obaku-san, just a little way down the river, these vast and noble structures crush one with the very majesty of their noble architecture, but for charm and fascination and keen appeal, one must search out tiny sanctuaries like this of Kôshôji.

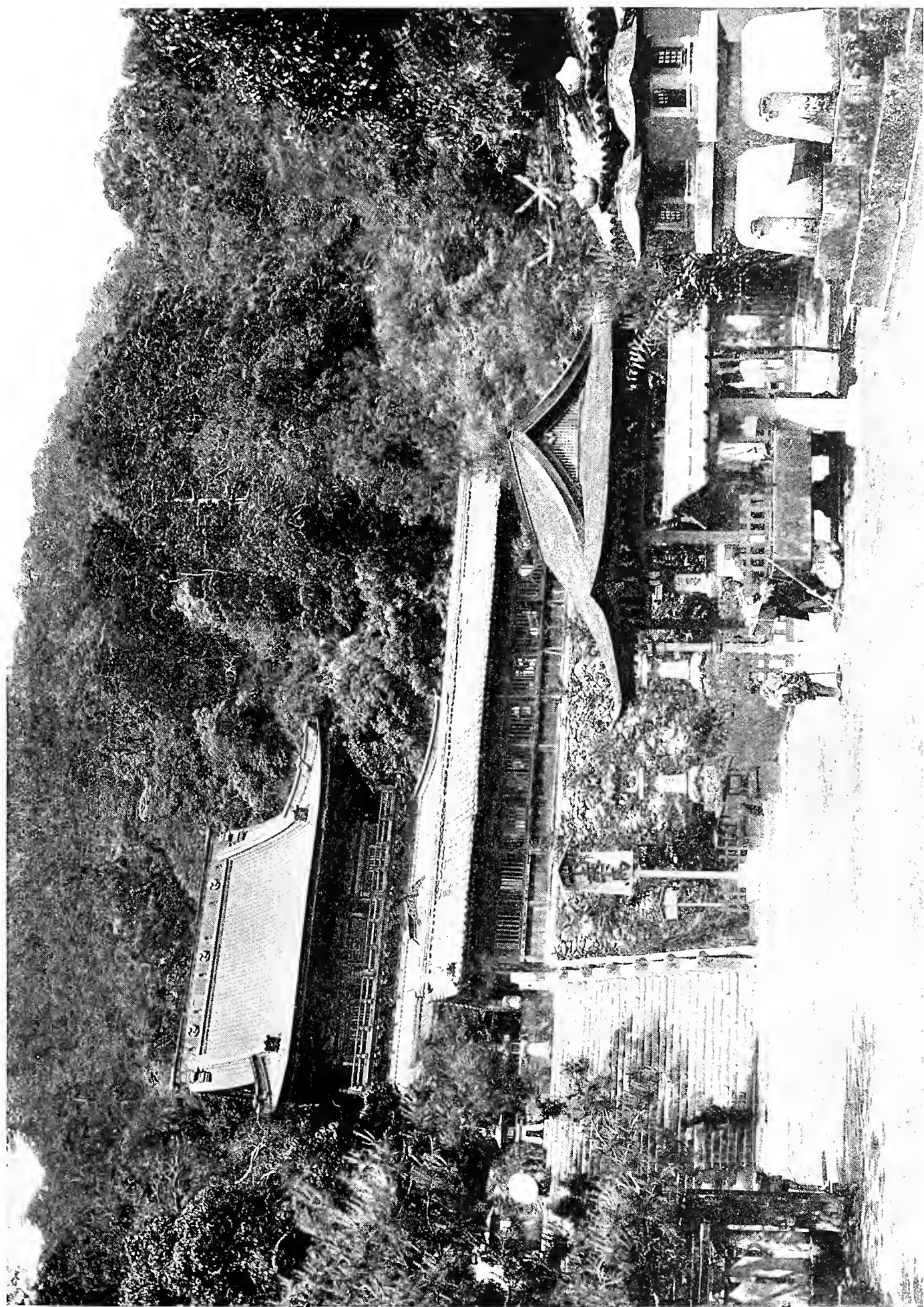
One enters first a little forecourt surrounded by buildings on three sides, the fourth being filled by the wall and gateway. The *hondô* or preaching hall is in front; a low, simple building on the left is the



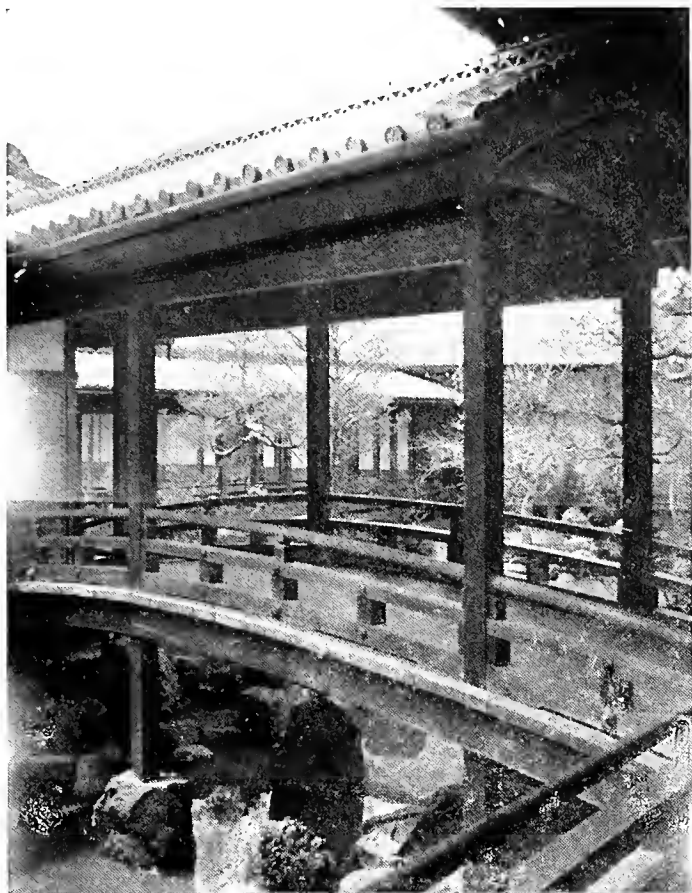
VERMILION TORII

residence ; on the right, the library and the bell cage. All the buildings are raised on low stone-walled terraces ; there are few flowers, and the gardening is made up almost wholly

of box and white sand. Of course there is the great pink tree, but its glory lasts for a short ten days in the spring, and for the rest of the year, the scented box is supreme.



KOTOHIRA TEMPLE, SANUKI



IN A MONASTERY GARDEN, KYŌTŌ

Nothing could be finer than these great rounded masses of bronze green: they rise from the white sand like tropical islands from a phosphorescent sea, and their clean-cut



A LITTLE GRAVEYARD AT NAGOYA

contours come crisp and fine against the pearly plaster of the convent walls.

In this forecourt all is trim and formal, but if you pass through a little gate in the



A GARDEN BRIDGE IN TŌKYŌ



A KOREAN GATEWAY

farther left-hand corner, you come upon a very different scene. Here everything is wildly picturesque, though still on a tiny scale. The monastic buildings wander off at all angles until they are brought up standing, against the wall of a beetling hill from which the trees lean down, thrusting their twisted branches out over the tiled roofs with their long keen curves. From under the very temple, it seems, springs a minute mountain torrent, threading its way through the midst of the garden at the bottom of a Lilliputian crevasse. Toystone bridges are flung across it, little trees, twisted into most impossible curves and angles, jut from its banks, velvety box runs along the mossy stone embankment, and strange little wild flowers seek the edge of the water. There are bronze lanterns and vases also, and on the farther side, the moss-blackened grave-stones begin and lead one away over the flat stepping stones to the hill base, then up the slope where the whole forest is full of similar memorials of the dead.



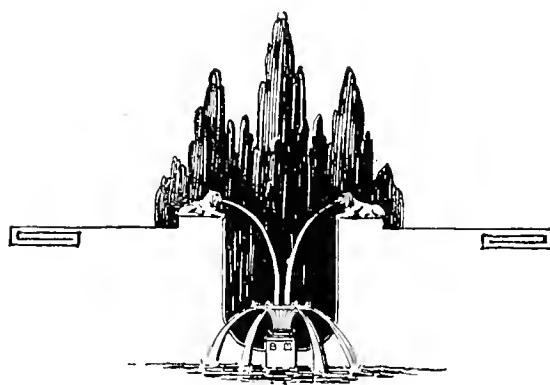
AT NARA

This Kōshōji is full of some kind of enchantment; once there one would never leave. We had heard each evening down at our inn at Uji (our inn that was built far back in the days of Hydeoshi) the velvety boom of some enormous bell, a sound that seemed to draw

one irresistibly, to rise up in the still night and search for its source under the great pale moon. In Kōshōji we found the bell, and much more; a little oasis in the desert of steam trams, and beer, and liberal politics, and we wanted to stay there forever. The old Japan has this charm, and I think this same charm concentrates itself, and

becomes really quite irresistible, in the form of a scented temple garden in some forgotten monastery, where the odour of incense mingles with that of box, where the patterned sand retains the lines of a thousand years ago, where tonsured bonzes in yellow robes move silently through the shed petals of a pink cherry, and a thunderous bell gives tongue at the rising of the moon.

Ralph Adams Cram.



POLARITY IN NATURE AND ART.¹

HELMHOLTZ says, "No doubt is now entertained that beauty is subject to laws and rules dependent on the nature of human intelligence. The difficulty consists in the fact that these laws and rules, on whose fulfilment beauty depends, are not consciously present in the mind of the artist who creates the work, or of the observer who contemplates it." The aim of the present author is to set forth a few of these laws of beauty in the belief that a better knowledge on the part of the artist concerning that "Beautiful Necessity" whose instrument he is (and which is equally his instrument), may enable him to approach nearer to that ideal beauty

which is the end of every artist's quest: and that such knowledge on the part of the observer may quicken his interest in and appreciation of every kind of esthetic endeavor.

The first law of beauty, alike in nature and in art, is that of polarity. All things have sex,—are either masculine or feminine. This is a truth so fertile that one might almost say of it, in the language of Oriental imagery, "If you were to tell this to a dry stick, branches would grow, and leaves sprout from it." In the words of Emerson, "Balance-loving Nature made all things in pairs." In the language of mysticism, "Brahma, that the world might be born, fell asunder into man and wife." Using the terminology of science, "Polarity, or the sundering of a force into two quantitatively different and opposed activities striving after reunion, which also shows itself for the most part in space as a dispersion in opposite directions, is a fundamental type of almost all phenomena of nature, from the magnet and crystal to man himself."

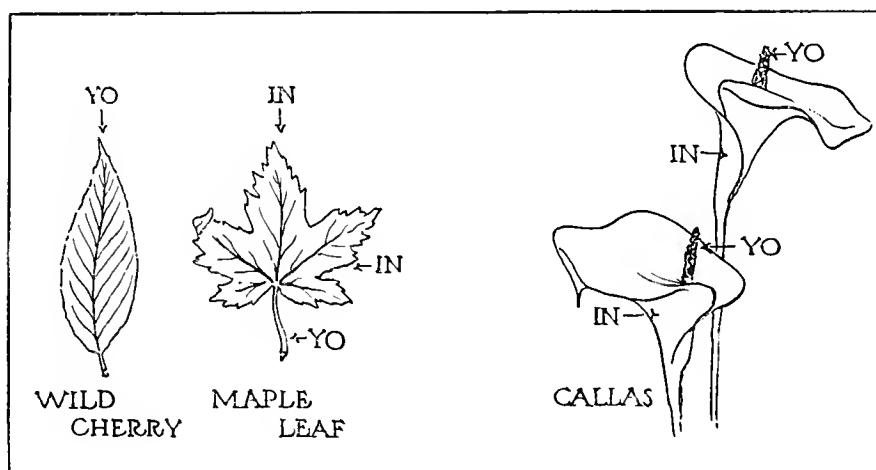
Of these two activities the world is filled with symbols. They are typified in sun and

moon, in fire and water,—man and woman. They are action and reaction, the positive and the negative magnetic poles,—power and weight. In music they are the major and the minor modes: the typical, or representative chords of the tonic and the dominant seventh,—a consonance and a dissonance, a chord of satisfaction preceded by a chord of suspense. In painting and the arts of design they are lines vertical and horizontal, straight and curved: masses light and dark. They are the cold colors, which have their

pole in blue (the color of water) which calms: and the warm colors, which have their pole in red (the color of fire) which excites. In speech they are consonant and vowel sounds, the type of the first

being *m*, a sound of satisfaction made with the mouth closed, and of the second *a*, a sound of suspense made with the mouth open. In architecture they are support and weight: the vertical member, which resists the force of gravity, and the horizontal member which succumbs to it.

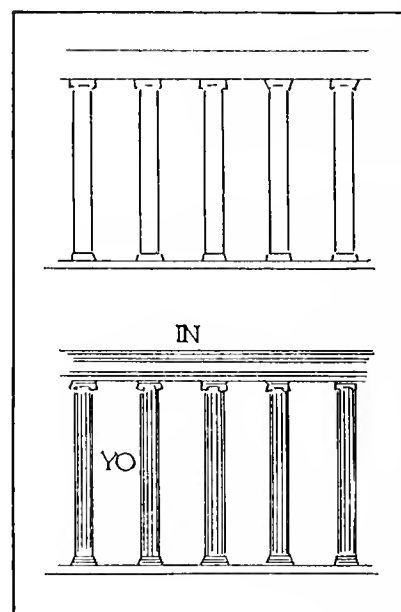
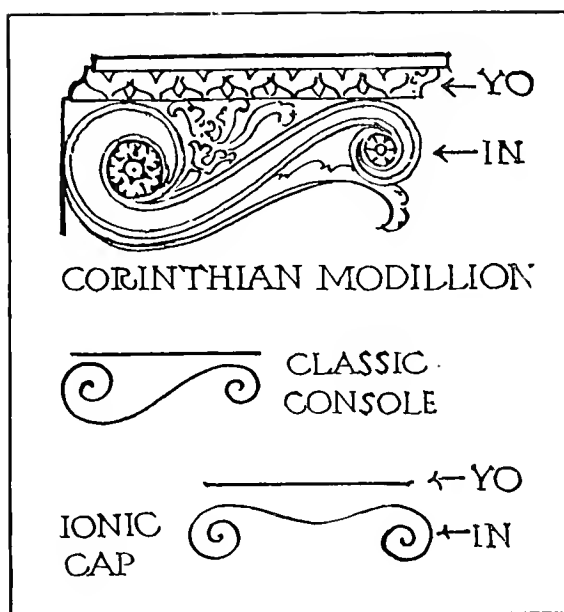
A close interrelation is discovered to subsist between the corresponding members of such pairs of opposites, since they are all only symbols and semblances of that unknown reality which forever hides itself behind phenomena—that great hermaphroditic being which is the world, its two sexes being repeated in every great and every minute thing. In whatever form the two occur they exhibit certain constant characteristics which distinguish one from the other; those which are allied to and partake of the nature of time being masculine: and those which are allied to and partake of the nature of space being feminine,—such as motion and matter, mind and body, etc.



¹ The third of Mr. Bragdon's series of articles entitled:—"The Beautiful Necessity: being Essays upon Architectural Esthetics," begun in the January number of HOUSE AND GARDEN.

The English words, masculine and feminine, are too intimately associated with the idea of physical sex to properly designate the terms of this polarity. In Japanese philosophy and art the two are called *In* and *Yo* (*In*, feminine: *Yo*, masculine). These little words, being free from the partial and limited

vertical reeds which so often grow in still, shallow water have their complementary in the curved lily-pads which lie horizontally upon its surface. Trees such as the pine and hemlock, which are *excurrent*,—those in which the branches start successively from a straight and vertical central stem,—are *Yo*.

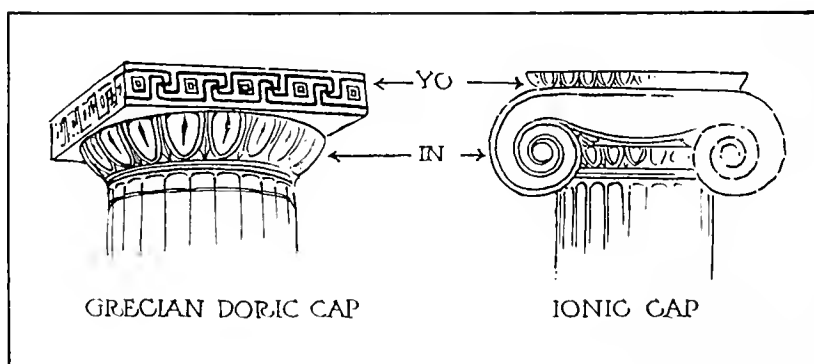


meanings of their English correlatives, will be found convenient, *Yo* to designate that which is simple, direct, primary, active, positive; and *In* that which is complex, indirect, derivative, passive, negative. Things hard, straight, fixed, vertical are *Yo*: things soft, curved, horizontal, fluctuating are *In*.

Nowhere are the two more simply and adequately imaged than in the vegetable kingdom. The trunk of a tree is *Yo*, its foliage *In*; and in each stem and leaf they are repeated. A calla, consisting of a single straight and rigid spadix embraced by a soft and tenderly curved spathe, affords a perfect expression of the characteristic differences between *Yo* and *In* and their reciprocal relation to each other. The two are not often combined in such simplicity and perfection in a single form. The straight and

Trees such as the elm and willow, which are *deliquescent*,—those in which the trunk splits up simultaneously as it were into branches,—are *In*. All tree forms lie in or between these two extremes, and leaves are susceptible of a similar classification.

The beauty of any architectural form depends not alone upon the perfection with which it expresses its peculiar nature and function, but upon the perfection with which it expresses this universal nature as well. It is



easy to show in what manner many admirable architectural forms have been developed simply through necessity, and that every increase in their fitness marked a corresponding increase in their beauty; but there remain many others whose undying charm cannot be accounted for in any such manner. The

secret of it lies somewhat in the fact that in them *Yo* and *In* stand symbolized and contrasted. Indeed, in rendering such forms, sexually expressive as it were, the construction itself is sometimes weakened or falsified.

The familiar classic console or modillion is an example. Although in general contour it is well adapted to its function as a supporting bracket embedded in and projecting from a wall, yet the scroll-like ornament with which its sides are embellished gives it the appearance of not entering the wall at all, but of being stuck against it in some miraculous manner. This defect in functional expressiveness is more than

compensated by the perfection with which feminine and masculine characteristics are expressed and contrasted in the exquisite double spiral opposed to the simple straight lines of the moulding which it subtends. By fluting the shaft of a column its area of cross-section is diminished, but it appears stronger because its masculine character as a supporting member is emphasized.

The importance of the so-called "orders" lies in the fact that they are architecture epitomized. A building consists usually of walls upholding a roof,—support and weight. The type of the first is the column, for it may be conceived of as a condensed section of wall;

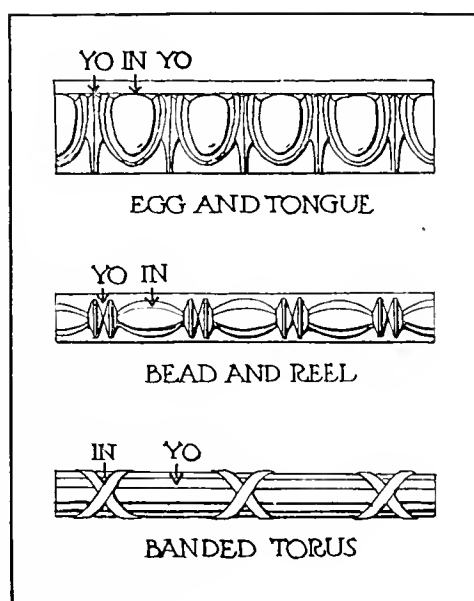
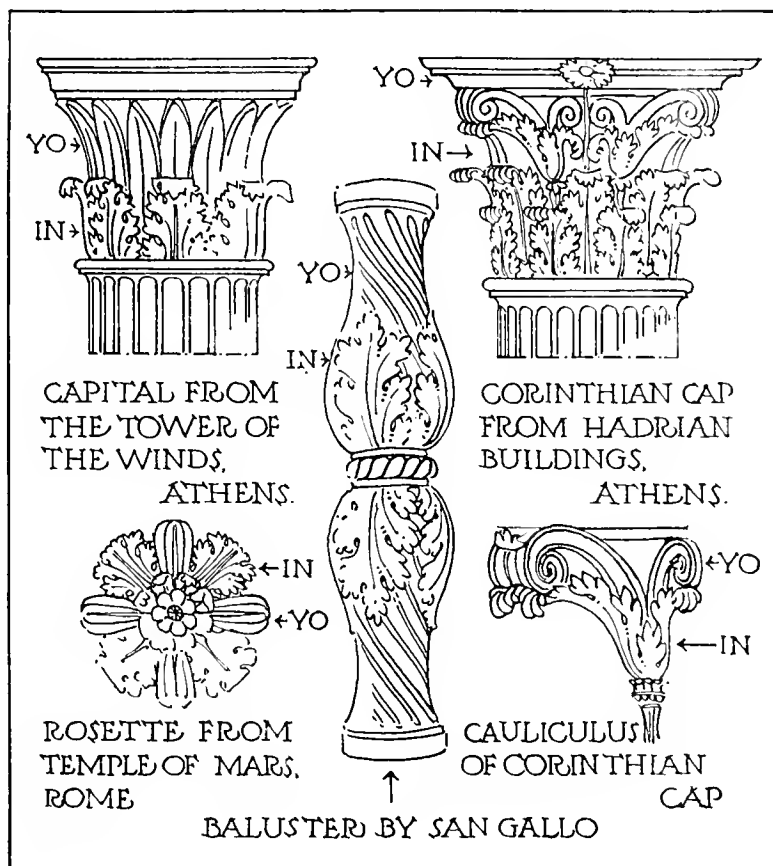
and of the second, the lintel, which may be conceived of as a condensed section of roof. The column, being vertical is *2o*, the lintel being horizontal is *In*. To mark an entablature with horizontal lines in the form of

mouldings, and the columns with vertical lines or flutes is a gain in functional and sex expressiveness, and consequently in art.

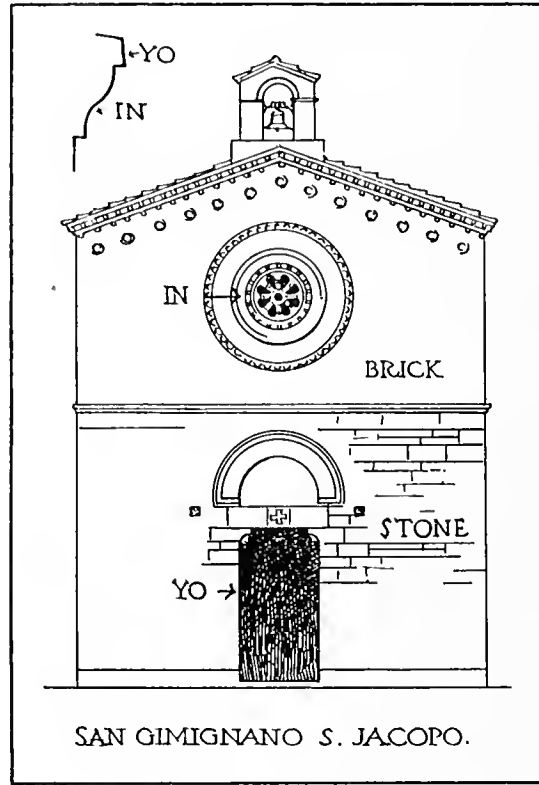
The column is again divided into the shaft, which is *2o* in relation to the capital which is *In*; and the capital is itself twofold, consisting of a curved member and an angular member. In the echinus (*In*) and the abacus (*2o*) of a Grecian Doric cap, these appear in their utmost simplicity. The

former was adorned with painted leaf forms, characteristically feminine, and the latter with the angular fret and meander. The Ionic capital, belonging to a more feminine

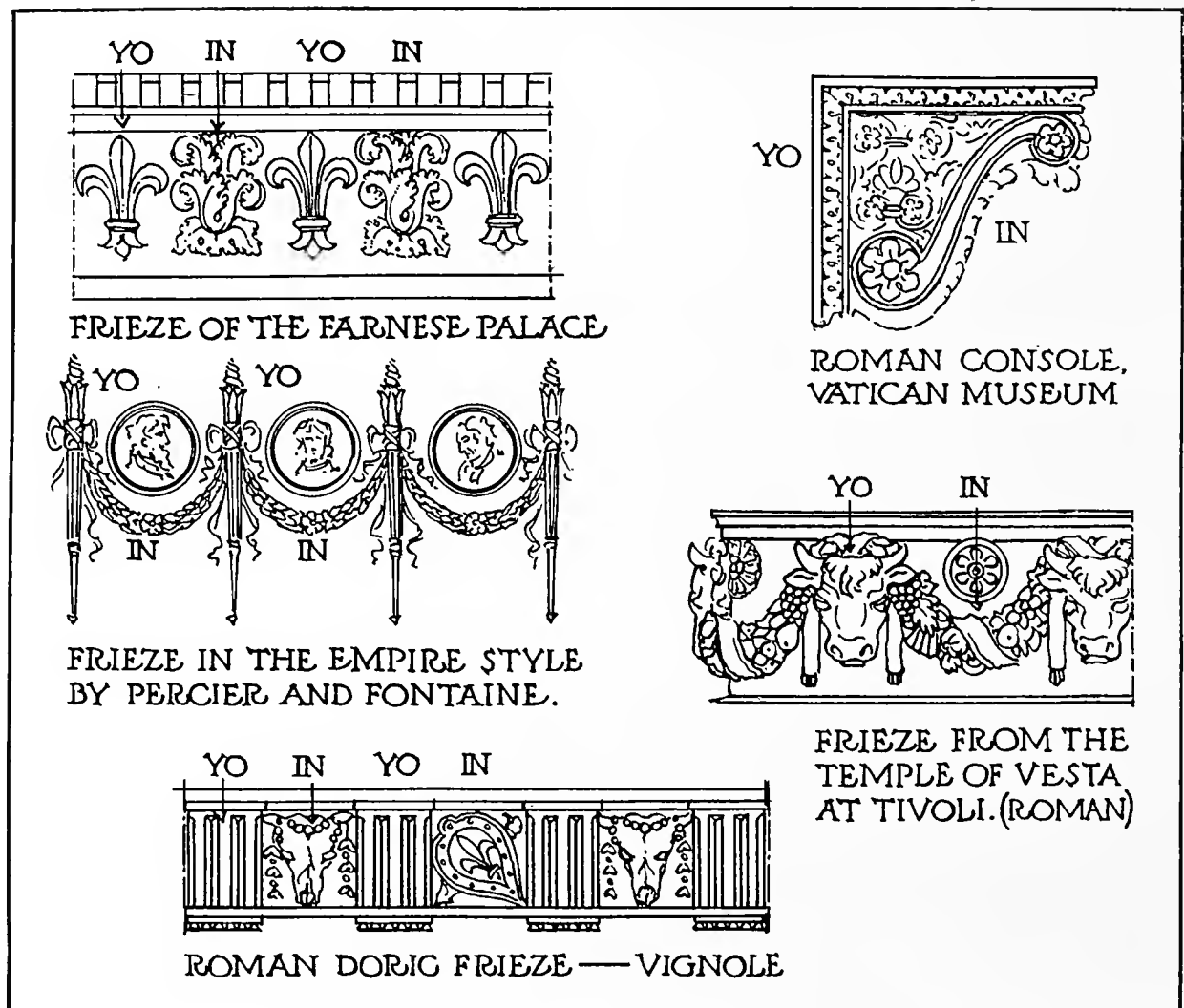
style, exhibits the abacus subordinated to that curious and beautiful cushioned-shaped member with its two spirally marked volutes. This, though less fitted for the position which it occupies and for the office which it performs than is the echinus of the Doric cap, is a far more perfect, and for that reason more beautiful, expression of the feminine element in nature. There is an essential identity between the Ionic cap and the classic console before referred to, although

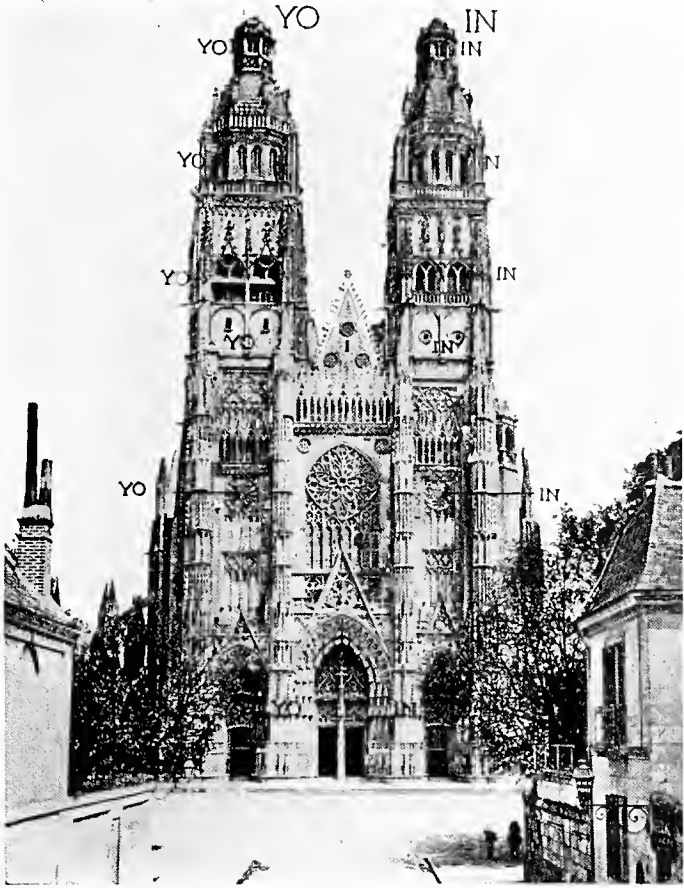


superficially the two do not resemble each other. A straight line and a double spiral are elements common to both. The Corinthian capital consists of an ordered mass of delicately sculptured leaf and scroll forms sustaining an abacus which, though relatively masculine, is yet more curved and feminine than that of any other style. In the caulicole of a Corinthian cap *In* and *Yo* are again contrasted. In the unique and exquisite example from the Tower of the Winds at Athens the two are well suggested



in the simple, erect and pointed leaf-forms of the upper half, contrasted with the complex, drooping and rounded ones from which they spring. The identity in principle between this and the Renaissance baluster by San Gallo will be noted. This law of sex expressiveness is of such universality that it can be made the basis of an analysis of the architectural ornament of any style or period. It is more than mere contrast. The familiar egg and tongue motif, which has persisted throughout so

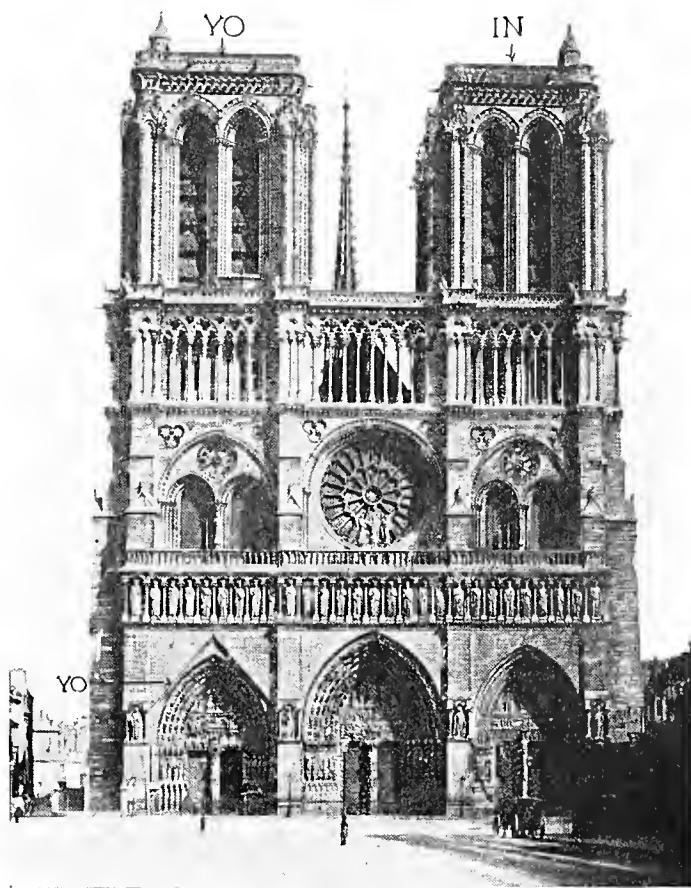




THE FAÇADE OF TOURS

many centuries and survived so many styles, exhibits an alternation of forms resembling phallic emblems. Masculine and feminine are well suggested in the triglyphs and metopes of a Doric frieze, in the torches and festoons of the style of the First Empire, in the banded torus and other familiar ornamented mouldings.

There is evidence to indicate that during the development of Gothic architecture in France this sex distinction became a recognized principle, moulding and modifying the design of a cathedral in much the same way that sex modifies bodily structure. The north, or right-hand tower ("the man's side") was called the sacred male pillar, Jachin; and the south, or left-hand tower ("the woman's side") the sacred female pillar, Boaz,—from the two pillars flanking the gate to Solomon's Temple. In only a few of the French cathedrals is this distinction clearly and consistently maintained. Tours forms perhaps the most remarkable example; for in its flamboyant façade, over and above the difference in the breadth and sturdiness of the two towers, there is an un-

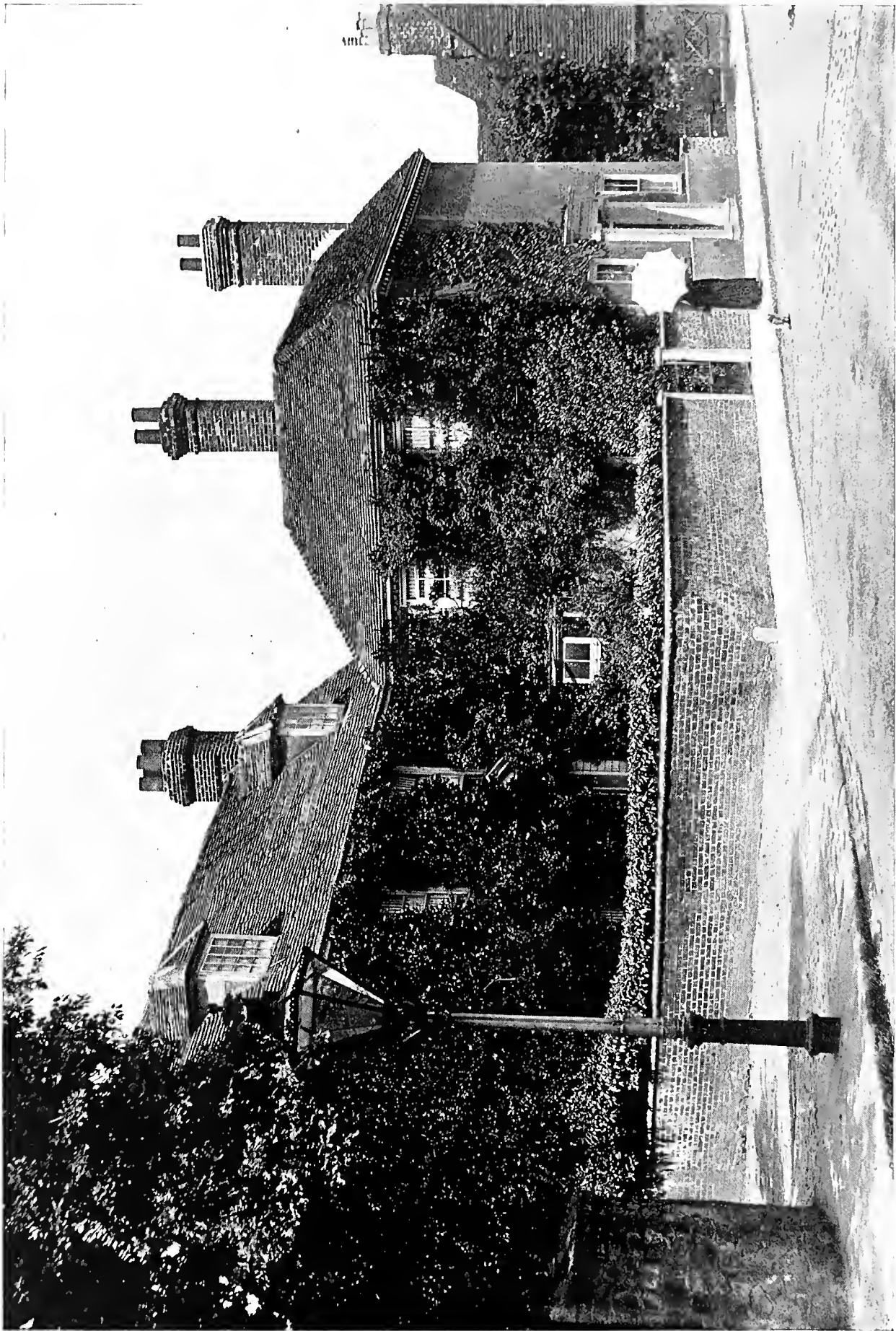


THE FAÇADE OF NOTRE-DAME

mistakable distinction between them in the character of the ornamentation, that of the north tower being in comparison with the south, more salient, harsh and angular. In the cathedral of Notre-Dame the north or masculine tower is also perceptibly broader than the south, or feminine. The only other important difference between them appears to be the angular label-moulding above the north entrance. Whatever may have been its original significance or function it serves to define the tower sexually as effectively as does the beard on a man's face.

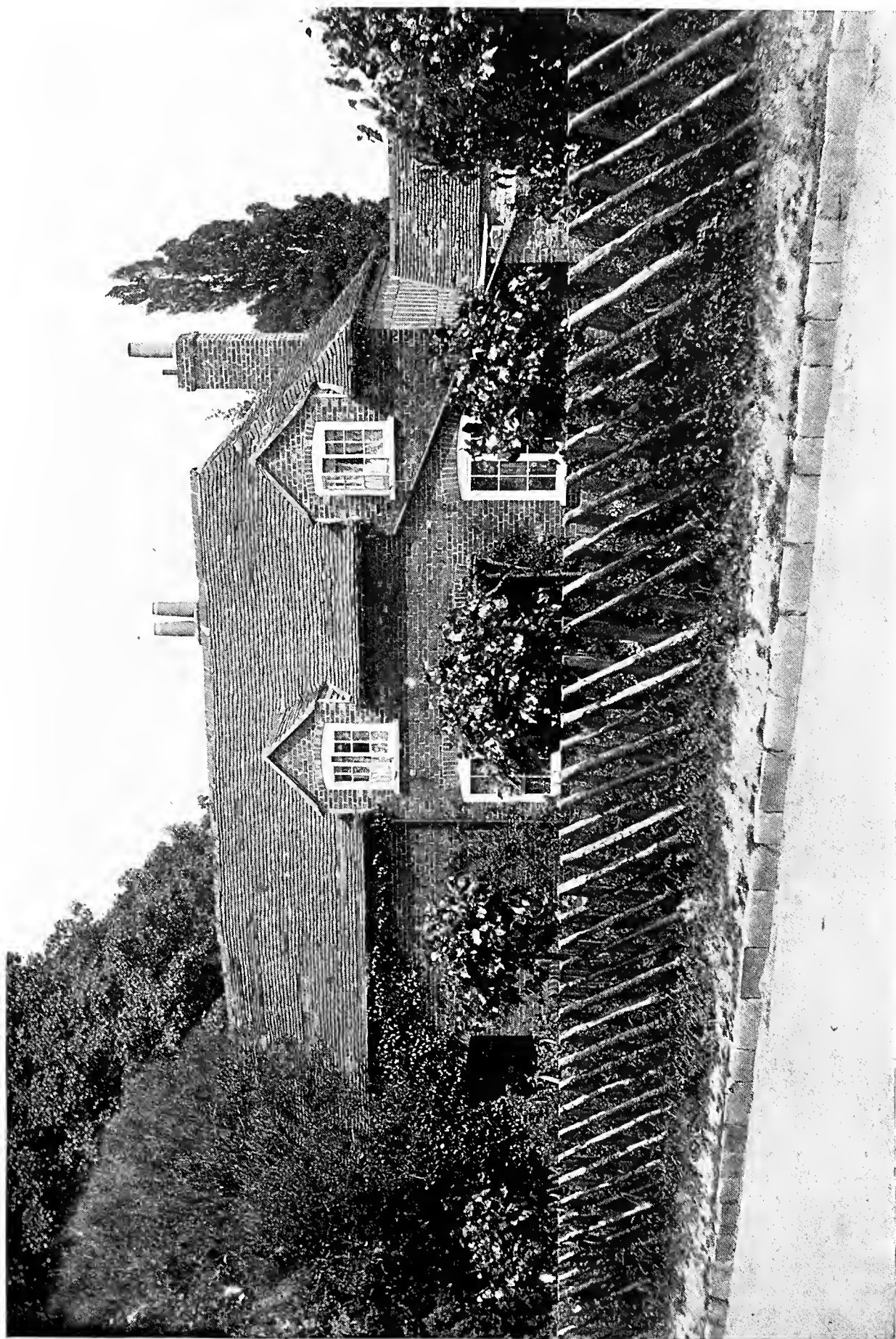
By recognizing this law of polarity in its application to architecture as something more significant than mere opposition and contrast; by a constant effort to discriminate between *In* and *Yo* in their myriad manifestations; and by attempting to express their qualities in new forms of beauty, from the disposition of a façade to the shaping of a moulding, the architectural designer will charge his work with that esoteric significance, that excess of beauty, which constitutes architecture a fine, a pure, a representative art.

Claude Bragdon.



HOUSE AT SEVEN OAKS

KENT



HOUSE NEAR WINCHESTER

ENGLAND

THE RELATION OF MURAL PAINTING TO ARCHITECTURE.

THERE are two ways of considering the relation of mural painting to architecture. We may consider what are the properest parts of a building to be devoted to mural painting, or what kind of mural painting is best adapted to the decoration of various parts of a building. In its widest scope the term "mural painting" may be said to include all application of paint,—even all application of color,—to architecture; and from this point of view there is almost no limit to the proper use of the art. If we put aside the use of colored marbles or other rich material (though mosaic and tapestry will still remain branches of painting) and confine ourselves to the application of paint alone, and if we include everything from the coloring of architectural members and the flat tinting of walls up to the complete picture used as a central feature of decoration, it is plain that the parts of a building to be devoted to mural painting may be all parts where the architect has not placed something else which excludes it. The tinting of walls, and even the painting of pure ornament, however, is seldom confided to a painter, properly so-called. It is done by firms of decorators under the supervision of the architect. Even the completely realized human figure may be so placed upon a wall, without background or suggestion of retreating planes, as to be little more than ornament. For this the painter is called in, but more than this is generally expected. The painting which, however flat in its treatment, does yet suggest spatial arrangement, which places the human figure in its surroundings and includes landscape and buildings in its possible subject matter,—this is the kind of painting which is desired when an eminent painter is engaged, the kind of painting the proper placing of which is of importance, and the kind of painting for which improper or inadequate places are frequently provided.

The consideration of the proper placing of approximately complete painting as decoration may be considered from two points of view: that of the architect, which is the point of view of architectural appropriateness; and that of the painter, which is mainly the point

of view of visibility. I think we shall find the key to the proper placing of such decoration from the architectural point of view in the fact that, architecturally considered, such pictorial decorations—paintings which suggest spatial arrangement, which have foreground and background, and which place the figure or other principal subject in its surroundings—are *simulated penetrations*. They are such by their very nature, no matter how carefully the painter may avoid any approach to actual deception, no matter how conventional may be his treatment. Such paintings at once suggest, no matter how remotely, an opening through which the picture is seen; and the test of good placing, from the architectural point of view, is the question: is this a place where a penetration might reasonably occur without destroying structure and architectural coherence? From the painter's point of view the question is even simpler. Pictures are made to be looked at. They should therefore be visible; and visibility depends on three elements: position, distance and lighting. The test of good placing of pictorial decoration, from the painter's point of view, are the questions: is this a position in which painting can be looked at with comfort; is it within a distance from the spectator where the qualities of painting can be seen; and is it so lighted as to be really seen at all? With these two tests I wish to examine the different parts of a room (for I shall not attempt to consider the possible uses of mural painting in exterior decoration) which may be or have been used for the placing of pictorial decorations, giving such examples as occur to me of good and bad placing, and of good and bad treatment of the places given. For, as some kind of mural painting may be used anywhere, a place unsuited for the higher kinds of painting may be quite suited to the lower kinds. The more structurally important is the architectural feature, the farther must its ornament be removed from naturalism, until, in the most highly organized parts of the architecture, any use of color other than that of the material itself is of doubtful expediency.

The possible parts of a room for treatment by pictorial decoration are the floor, the piers or columns, the ceiling (vaulted or flat) and the walls. The floor we might, perhaps,

dismiss at once as obviously absurd from either the architectural or the pictorial point of view; but I believe there are instances, in Roman work, of pictorial floors in mosaic. That material makes this kind of decoration a trifle less frankly ridiculous than painting proper would be, but the essential absurdity of a penetration in the place where the spectator is to stand, or of a picture laid down to be walked over, is not much lessened. The hearth-rug of our childhood, in which a would-be realistic tiger prowled through a would-be realistic jungle, was hardly worse. The pavement of the Cathedral of Sienna contains a great number of pictorial compositions. These must be in an awkward position to look at; but at least they are perfectly flat, without modelling and practically without color. There can be no doubt, however, that the decoration of a floor in whatever material should be made up of pure ornament of a very flat, formal and conventional order.

The pier, if it have broad flat surfaces, may be tempting from the painter's point of view. Its surfaces are upright, well within the range of vision, and generally fairly well lighted. The inappropriateness of a simulated penetration in the main supporting member of the architecture is, however, so obvious that it would seem difficult to believe that anyone had ever contemplated it, were it not for some existing examples. Wherever else one should place pictorial decorations one would say it should *not* be on the pier. The best treatment of the pier, if it is to be painted at all, is to paint it with pure ornament. The Pompeian figure, which is not seen through the wall but is on or floating in front of it, is tolerable, and has been well employed by Mr. Maynard in the Library of Congress. The simulated niche, while open to the objection to all simulated architectural features, is at least not inconsistent with the function of the pier itself. But in one of the great halls of the Paris Hôtel de Ville the surface of the great isolated piers which support the vaulting is used, with only a narrow edge of gold moulding, for the display of landscape paintings typical of the various provinces of France. To place landscape, the art of space *par excellence*, in the one place where a penetration is inconceivable, this is surely the best example of what not to do.

Ceilings may be domed, vaulted or flat. In the domed or vaulted ceiling, it is plain that a penetration might be conceived of in the centre of the dome, or between the ribs of the vaulting, without entirely destroying the structure of the ceiling itself. On the other hand the pendentives are bad places for pictorial treatment. In early work the tendency was to treat the whole ceiling with ornament only, and in any case, to preserve strong ribs, whether projecting or painted, between the pictures. In the ceiling of the Stanza della Segnatura, Raphael following Sodoma's scheme, has confined the pictorial decorations to small medallions, and in the square decorations in the pendentives, has avoided depth by means of a background simulating gold mosaic. The penetrations are small and inconspicuous, and the sense of a vaulted ceiling is retained. Michel Angelo was the first man to cover a ceiling entirely with figure painting; but his infraction of the rule that pictures should be confined to conceivable penetrations is less real than apparent. He was sculptor and architect, as well as painter, and the ceiling of the Sistine Chapel is to be properly regarded as a great scheme of simulated architecture and colored sculpture rather than as a painting. He came in to create an architectural setting, which the architect had failed to provide; and the main parts of his decoration, in which backgrounds are painted and into which the element of depth enters, are certain comparatively small panels between strong simulated vaulting ribs. Even in the gorgeous Venetian ceilings, which are flat and without vaulting, the painted surface was limited and was contained within enormous gilded frames of heavy carving. This alone rendered the full pictorial treatment tolerable, and maintained the sense of construction. Correggio was the first to treat the whole surface of a dome pictorially, cutting away construction altogether, and I think it was not until Tiepolo's time that the same thing was done with a flat ceiling. In Raphael's frescoes in the Farnesina the framework is reduced to the smallest possible vestige. From the painter's point of view a ceiling, flat or curved, is a bad place for pictorial treatment because it is overhead and therefore difficult to see; because it is often not a plane surface and has no natural

top or bottom; because it is frequently too distant; and finally because it is seldom well or evenly lighted. Yet the ceiling is one of the places which architects are fondest of reserving for mural painting. When Mr. George B. Post made the decision to have certain decorative paintings in the Liberal Arts Building at the Chicago World's Fair, thereby beginning the recent movement toward mural painting in this country, the only spaces available were certain pendentive domes fifty feet above the pavement and illuminated only by reflected light. The artists chosen were untried decorators, and they had to discover a treatment that should not too grossly deny structure, that should be visible in such a light and at such a distance, and that should give scope to their pictorial training. Mr. Blashfield undoubtedly solved the problem better than the others by building up a simulated dome with open top, and by painting his pendentive figures in front of this simulated architecture. The collar of the dome of the Congressional Library is much too high for painting, and architecturally considered, it seems to me a lapse of continuity. This fault is minimized by the simulated mosaic background, but the lantern still seems cut off from its natural support by the intercalated band of painting. The hardest of hard problems, however, is that of a flat ceiling like that of the ball-room of the Waldorf-Astoria. Here the ceiling, being treated as the canvas for a vast painting, is set back from and above the cornice, so that it has no visible place or architectural function, while it can only be lighted from the edge, and the picture painted upon it is invisible. Such good painting as Mr. Blashfield put there is wasted, save in so far as it adds to the splendor and luxury of the room.

After the ceiling we come naturally to the tympanum and the lunette. From the architectural point of view, there is no objection to be found to these spaces as fields for painting. Architecturally they are filled-in penetrations, and therefore natural places for simulated penetrations. Pictorially they have the merit of being perpendicular surfaces, and their forms are interesting and stimulating to invention, though somewhat monotonous in their limitations, and allowing little freedom of composition. Their position is

apt to be in an important axis of the building, and in such a situation a strictly formal and symmetrical arrangement is advisable. Minor lunettes sometimes admit of more freedom, as has been well shown by Mr. Walker in the Library of Congress. The chief objection of the painter to the lunette is that it is apt to be high and ill-lighted.

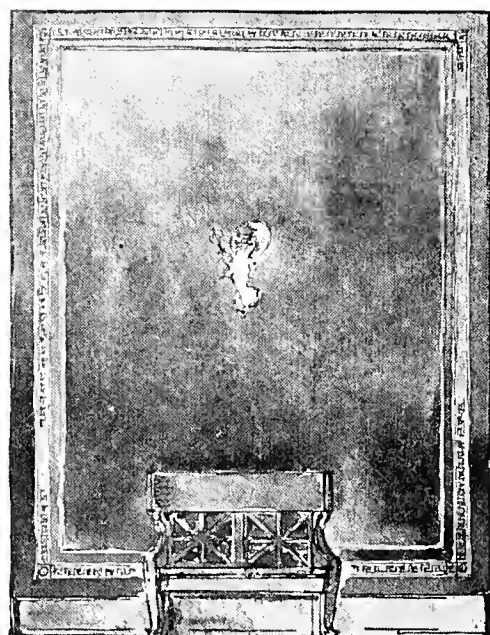
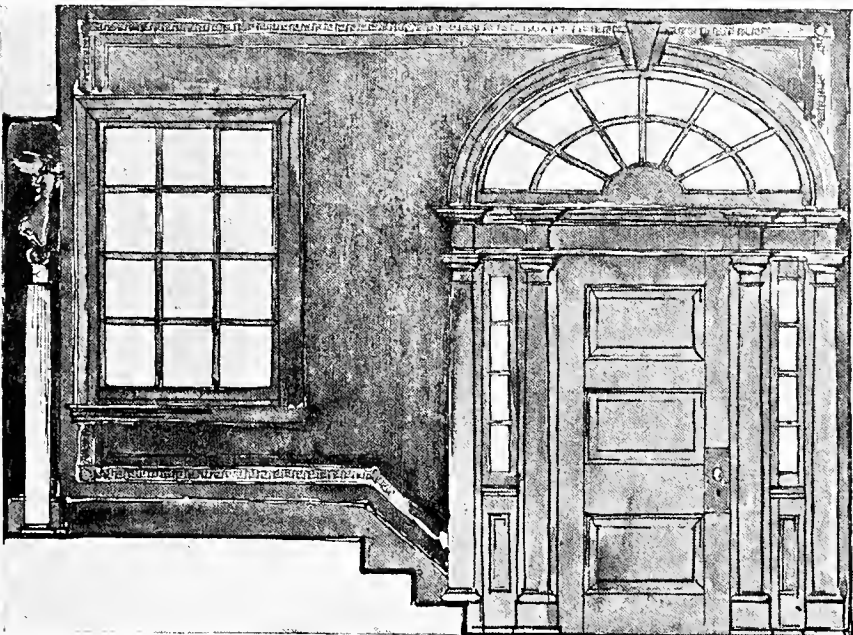
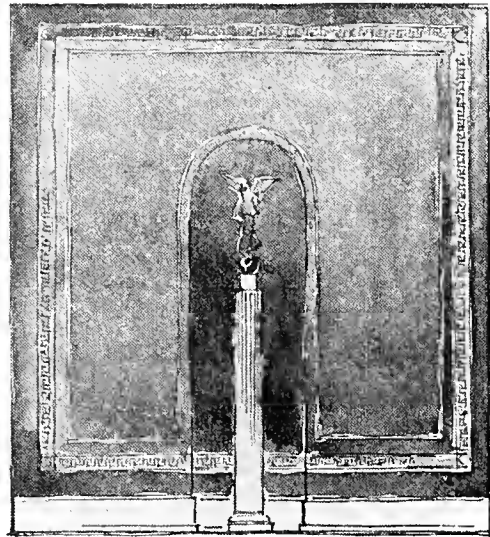
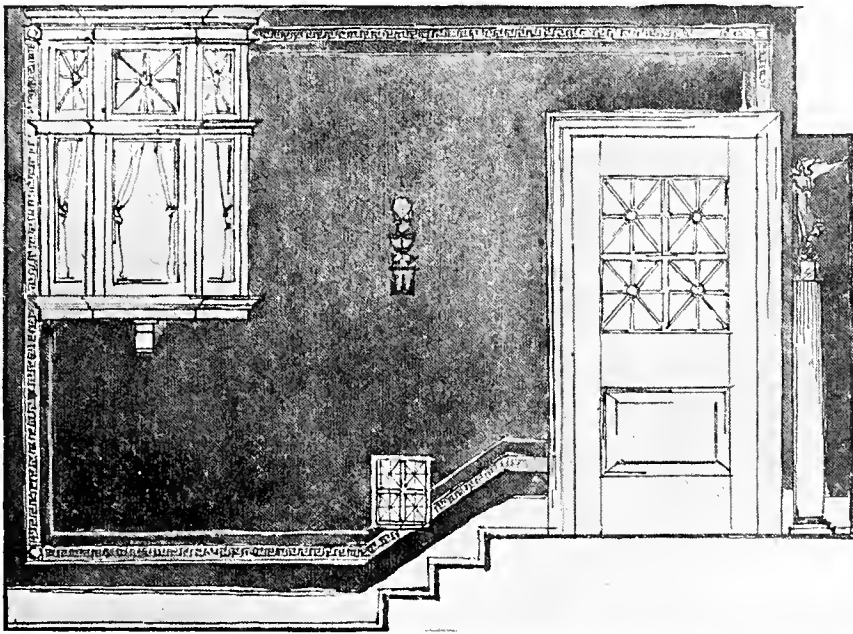
Below the lunette comes the frieze. If this is a part of the architectural framework—something in the nature of a lintel connecting the piers—it is evident that it is not better suited to full pictorial treatment than the piers themselves, and not very well suited for figure painting of any kind. The best method of treating it would be with pure ornament. If however, as is more commonly the case, the frieze is the upper portion of the wall curtain, there can be no architectural reason for not using it as a field for pictorial decoration, provided it is not so continuous as to cut the ceiling from the walls and cause it to appear hung in air. When the frieze is continuous, it would be better to avoid distance or any suggestion of space. In the entrance hall of the Appellate Court in New York, we have an admirable instance of proper treatment by Mr. Mowbray. The frieze, turning round the elevator shaft, has figures upon it relieved, against a flat tone, with stencilled monograms. Even here, however, the artist felt the need of a break at the salient angles, and introduced little pilasters there. Where the frieze is broken by engaged columns or pilasters, which seem to support the cornice, greater liberty of treatment is admissible, and such broken friezes form good spaces for paintings, though not the best. They are apt to be cramped for room, are seldom the best lighted portion of the wall and are not well within the line of vision.

There can be no doubt that the best place for mural painting of a high order is the wall screen itself. If the wall has strong features,—piers or pilasters with arches or cornice,—there is no reason why the whole space between these features should not be given up to painting. If the wall is of a continuous or united surface, it would be better to make the simulated openings cover a part of the space only, and to surround them with painted borders or flat tones. In any case the pic-

tures should be high enough from the floor to guard them from damage by ordinary accidents. Here are ideal conditions at once of architectural appropriateness and of pictorial visibility; here the greatest freedom of composition is possible; here the fullest pictorial treatment, short of illusion and compatible with general principles of decorative style, is not only possible but desirable. Yet it is just this space that architects seem most loth to give over to the painter. Whether architects prefer the evident costliness of precious

marbles or carved wood to the more recondite costliness of paint spread by a master, I do not know. But it is certain that the place where the painter could do his best, the place where in the past he always has done his best, where what he does would show to the best advantage, and where, if ill-judged, it could do the least possible harm to the architecture, is the place which the modern architect—especially the American architect—least often asks him to adorn.

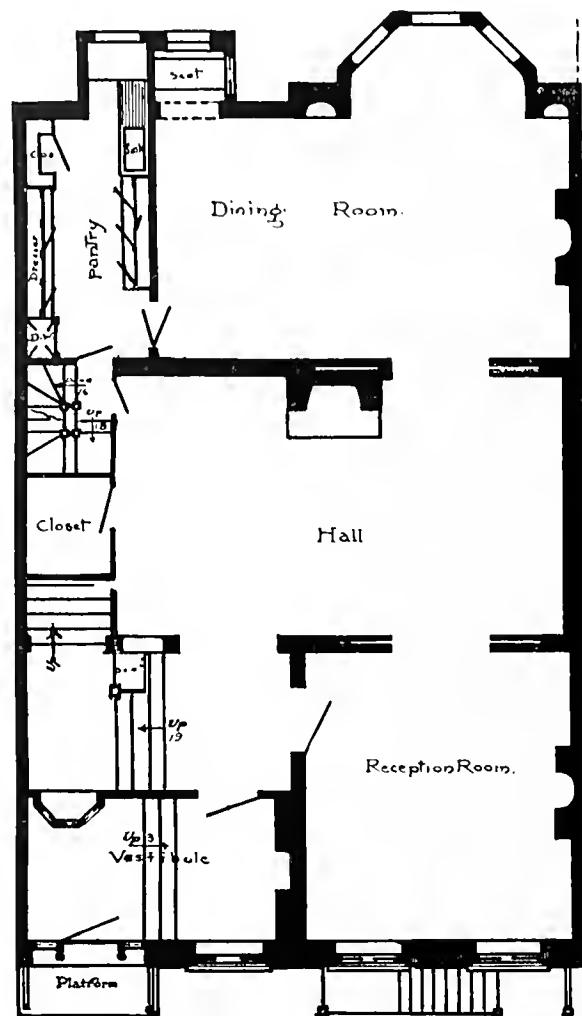
Kenyon Cox.



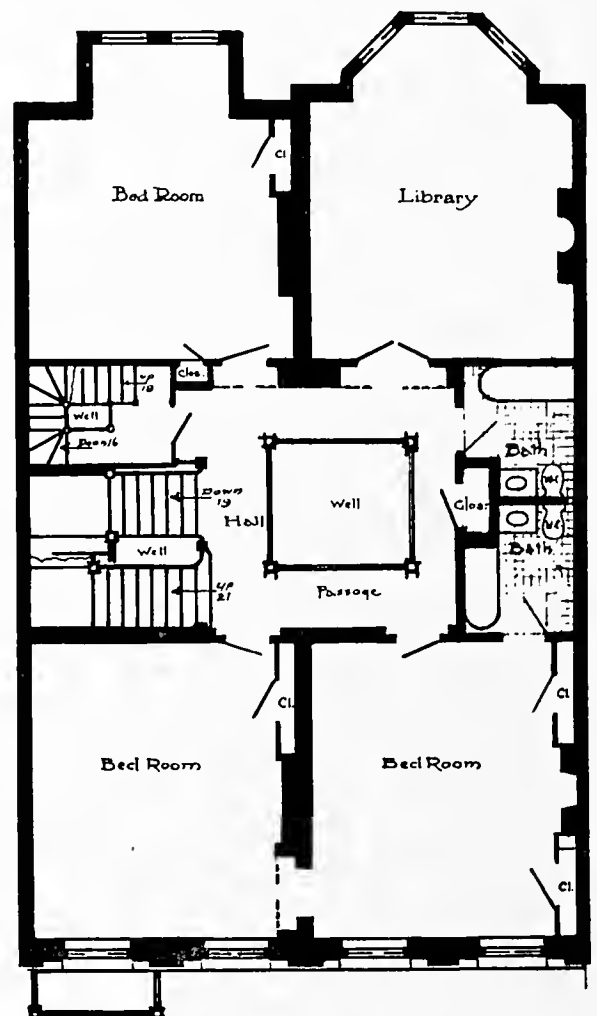
SKETCHES FOR THE VESTIBULE, AT 2123 SPRUCE STREET, PHILADELPHIA

DESIGNED BY WILSON EYRE, ARCHITECT

See page 102



First Floor Plan



Second Floor Plan

AN INTERESTING ALTERATION.

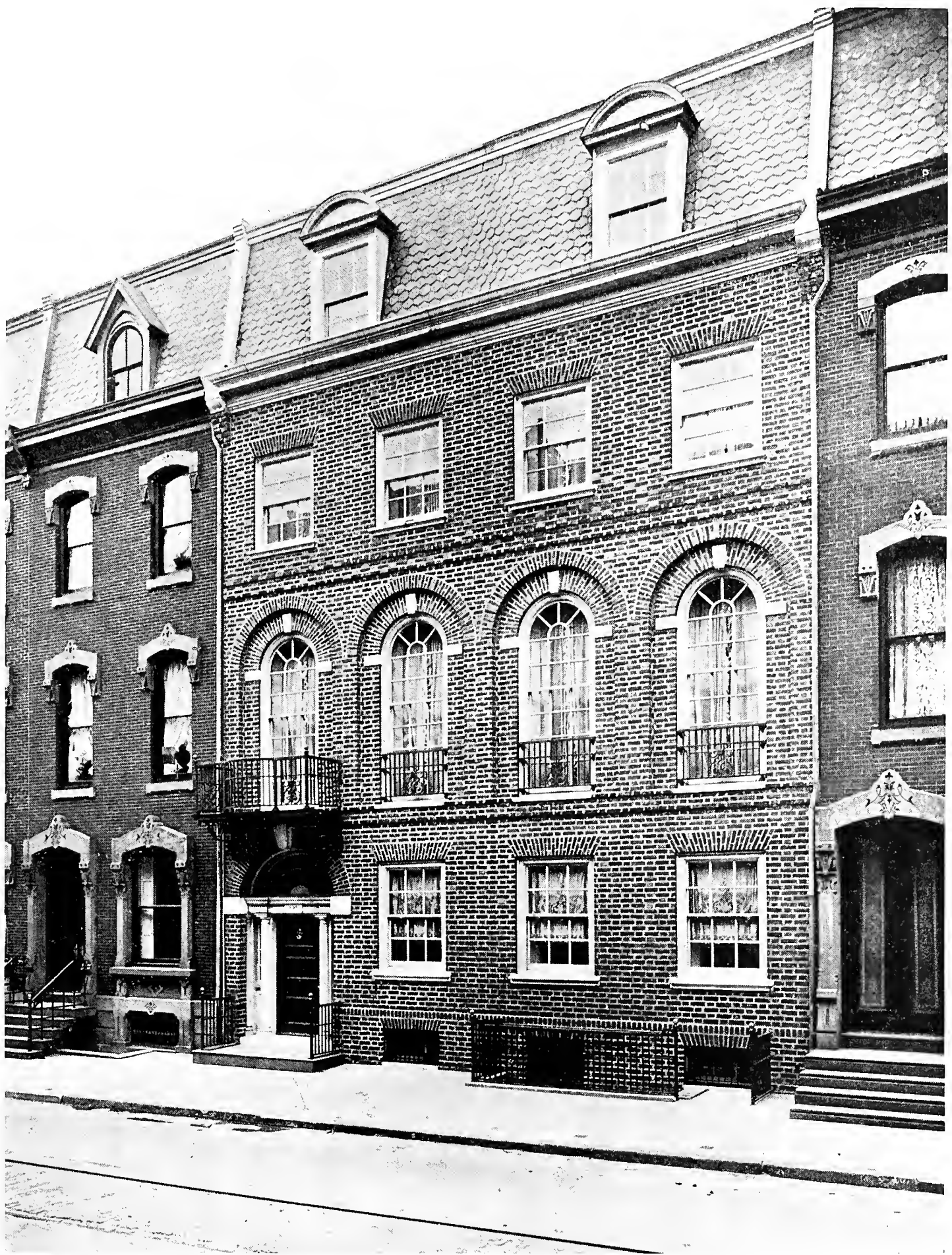
2123 SPRUCE STREET, PHILADELPHIA.

Designed by Wilson Eyre, Architect.

TWO old houses in the middle of a characteristic Philadelphia row have been remodelled for this building and a monotonous procession of pressed-brick house-fronts has been broken. The façade has a width of thirty-four feet. It is a rather vigorous rendering of the Georgian style, and relies less upon enrichment than carefully studied proportions. A well-designed doorway, a wrought iron balcony and railings, guarding the windows, assist the effect of a very simple scheme of fenestration. The front wall is of rough red brick, laid with joints one inch wide, and the cornice is of marble. The mansard roof was retained in its old position in order to save expense and to conform with the skyline of adjoining

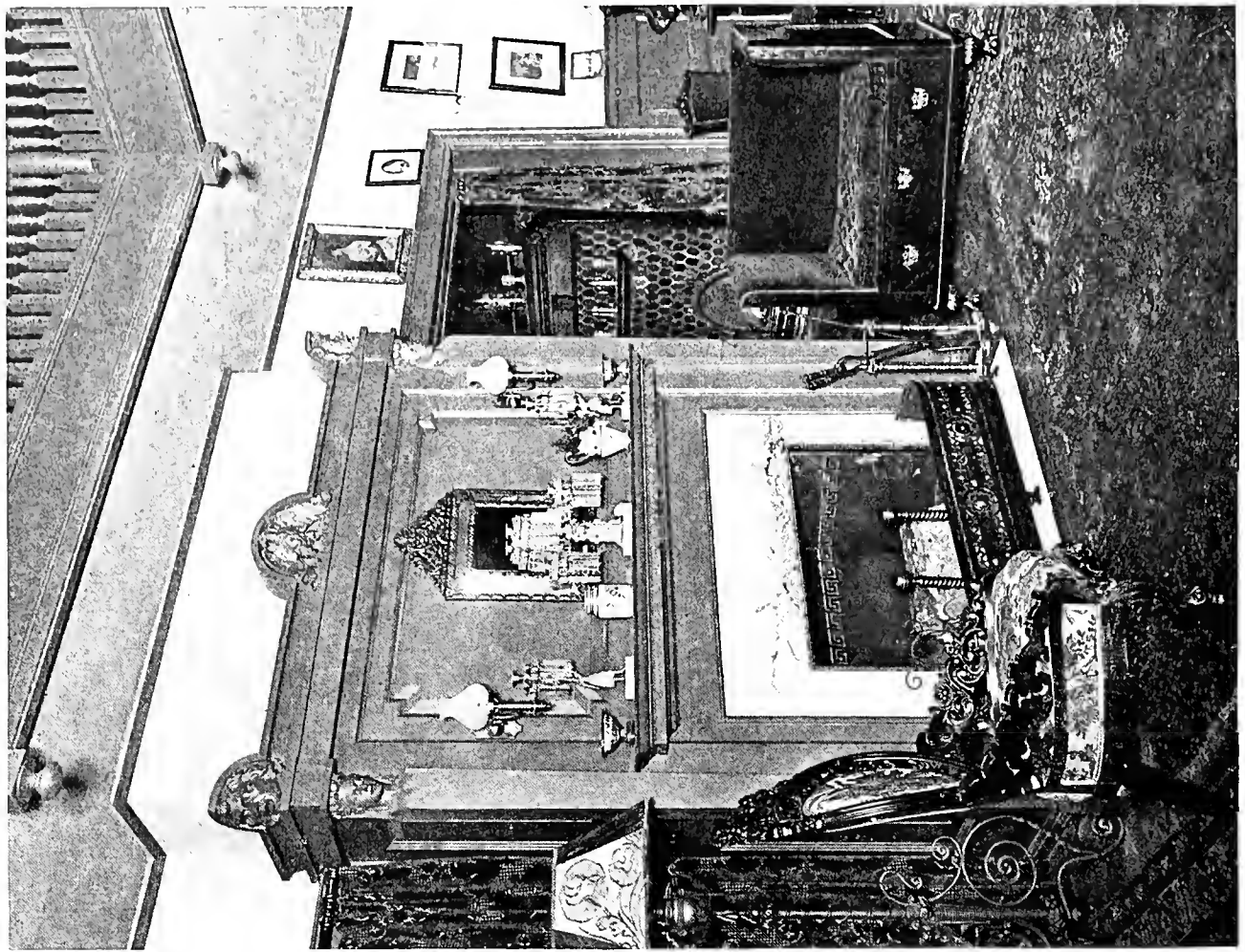
properties. The plan reveals the original two dwellings, a dual arrangement which is not suggested by the important semicircular arched windows of the second story.

For the interior an effect of space was sought. A large vestibule, decorated with a reminiscence of Pompeian walls, leads to a living-hall open to the roof and surrounded by galleries at each floor. From the first landing of the stairway a small oriel opens into the vestibule. The dining-room is gothic in feeling, and is surrounded by a high wainscot of oak framework with panels filled with red leather, above which a plate shelf is supported by brackets shaped into human figures and clustered fruit. All the woodwork is stained black. Windows are filled with plain leaded glass having an ornamental center. In the upper stories the library is in a simple Gothic style, and the other rooms become less distinct in treatment.

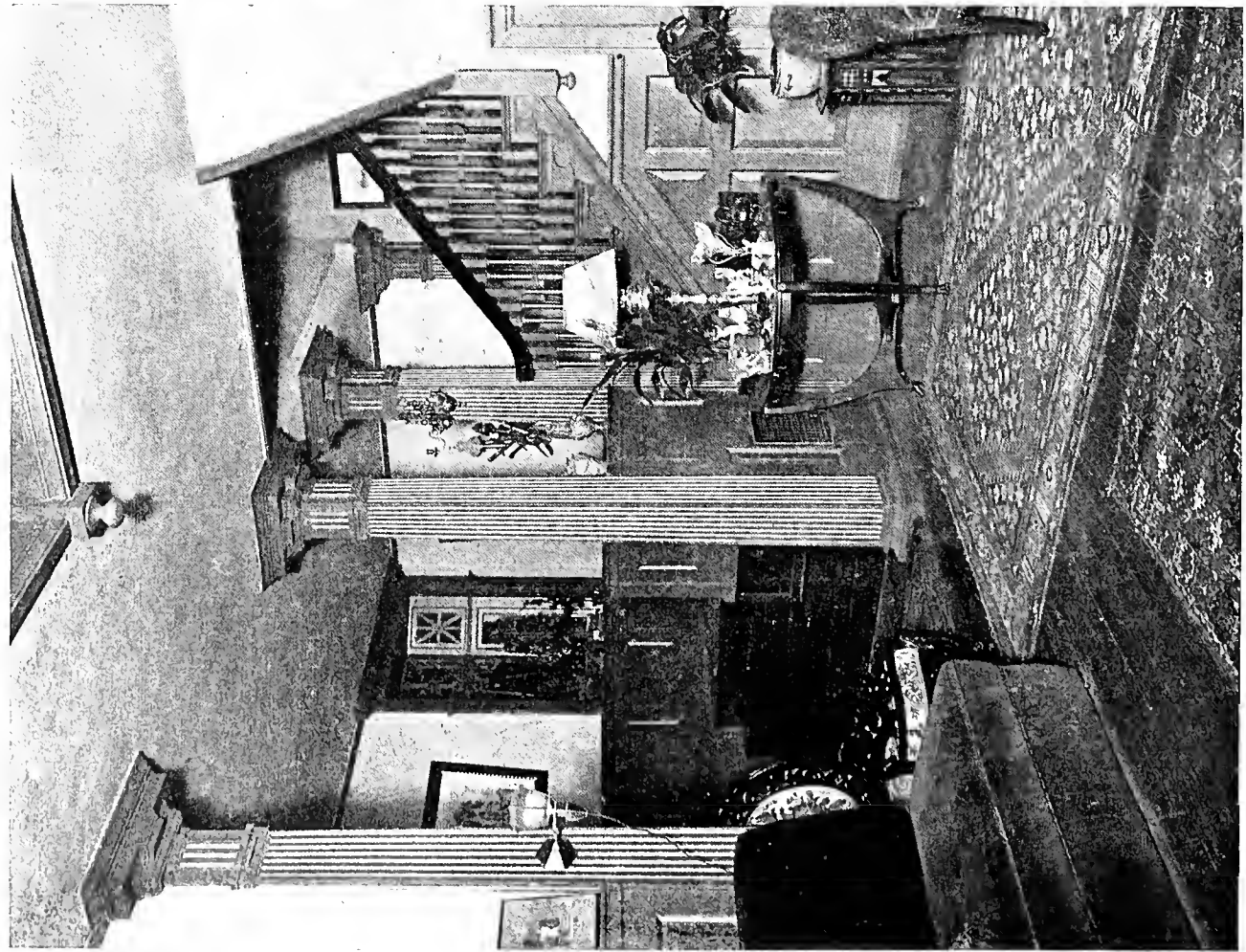


A RESIDENCE, AT 2123 SPRUCE STREET, PHILADELPHIA
DESIGNED BY WILSON EYRE, ARCHITECT

An Interesting Alteration



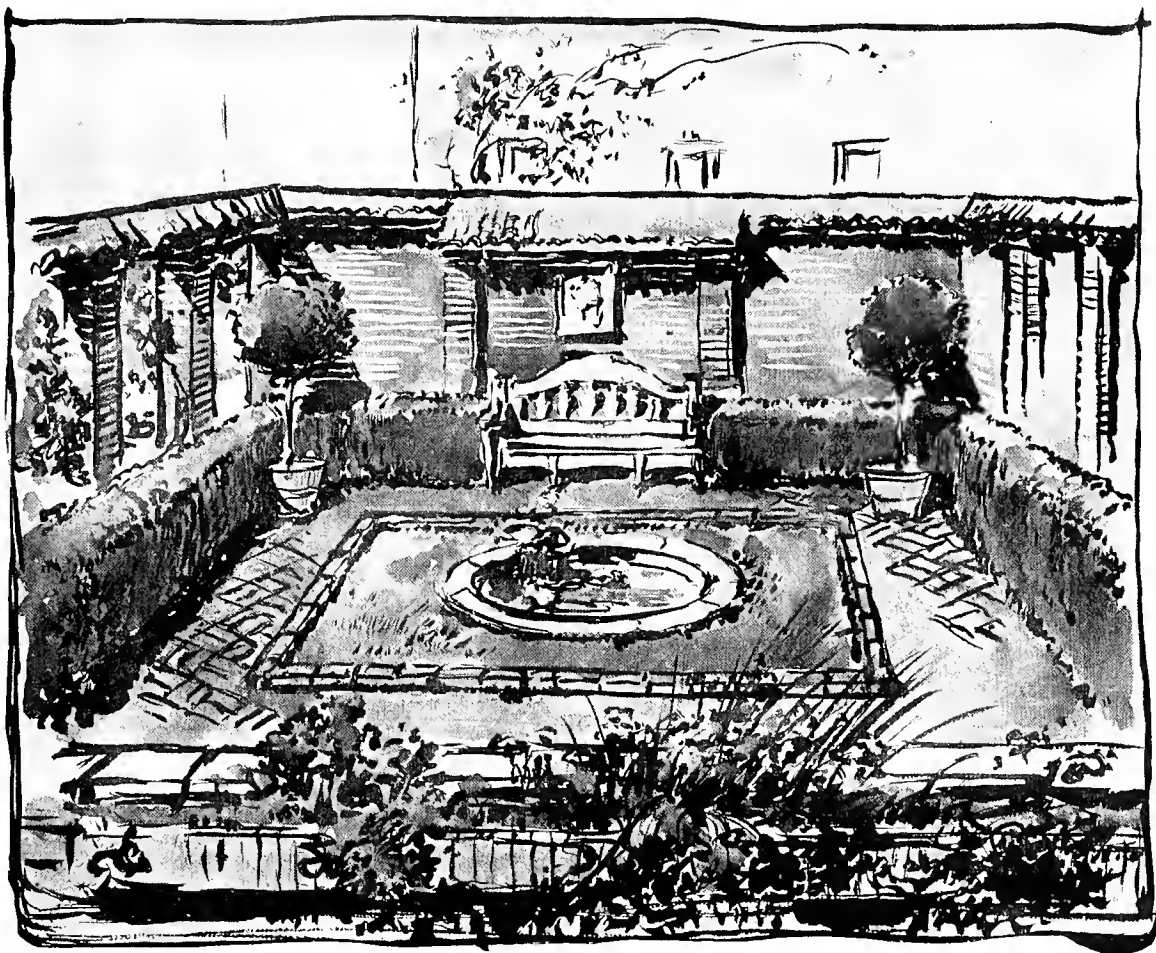
DESIGNED BY WILSON EYRE, ARCHITECT



THE HALL, AT 2123 SPRUCE STREET, PHILADELPHIA



THE DINING-ROOM



SKETCH FOR THE GARDEN.—A RESIDENCE AT 2123 SPRUCE STREET, PHILADELPHIA
DESIGNED BY WILSON EYRE, ARCHITECT

THE ART OF COLLECTING HOUSEHOLD FURNITURE.

FASCINATING and not altogether unprofitable is the pursuit of the antique and the picturesque in household furniture. Perhaps this species of chase is even more interesting if the devotee of the sport is somewhat hampered by the limitations of a not over-full pocketbook. He who spends freely does not derive so much pleasure from a fit or beautiful thing obtained at moderate price, as does he to whom every such indulgence is a luxury to be carefully weighed and considered. The cautious buyer soon learns that no piece of furniture is worth his ill-spared cash merely because it is old. He is fastidious, not only as to price, but also as to form and quality. Our ancestors put good material and skilled cabinet-making into some of the ugliest articles that ever disfigured a drawing-room. These the buyer of moderate means may very well leave for persons of more wealth than taste. He will watch for delicate lines, quiet ornamentation and excellent workmanship. All these things may be had at moderate price, if the buyer knows where to search and how to bide his time. They are not to be had, save at relatively high prices, in the shops of the professional dealers in antiques in our largest cities, but rather in the junk-shops and obscure second-hand furniture stores, and occasionally at sales of household effects in the country.

He that would meet rare opportunities must always have his eyes open, and must be content now and then to give a half-

holiday to the search. The most knowing of the dealers in second-hand furniture have regular customers for whom they save anything excellent that comes into their hands. Others instantly expose upon the sidewalk any bit of mahogany or rosewood that they may chance upon. In such cases the bargain is for the first-comer. Still others ignorantly stow away fine old pieces with odds and ends of rubbish. It is to shops of this kind that one must look, and the intelligent collector will have half a dozen of them on his list to

be visited at intervals of three or four weeks. There is always a pleasant glow of anticipation in the prospect of these visits.

Bits of furniture picked up in this fashion give a peculiar interest to a house. To every article a story is attached. The owner recalls the glow with which he came upon that delicate Chippendale sideboard, a mere wreck in an obscure shop, the ridiculously small price he paid for it, the satisfaction with which he installed it in his dining-room. A thing of beauty it now is, after the cabinet-maker has restored it to its pristine glory. That handsome mahogany arm chair, Greek in shape, and too heavy to be lifted



UNMATCHED CANDLESTICKS

by any but a strong arm, was bought for half a dollar, as the purchaser was hurrying to catch a railway train. That rosewood card-table was found beneath the rubbish of a second-hand furniture dealer's shop in a suburban city, bought for less than five dollars and repaired for six. That pair of old-fashioned candlesticks, with jingling crystal ornaments, was bought in a like place for a dollar and a half, when nearly half the prisms were missing. Those two graceful brass candle-



BARGAINS IN BRASS, GLASS AND CHINA

sticks, and those two pairs of quaint little andirons have a similar history. So, too, has the slender little serving-table (picked up on the sidewalk for three dollars) and the century-old rush-bottom chair.

It is pleasant to see the cheaper pieces of factory-made furniture disappearing one by one from the house, as their places are supplied by fine old mahogany, every article of which has its story, its association of some self-denial. The house in its furnishing and minor decoration is thus a record of the owner's taste. Perhaps a dozen years have gone to the making of such a collection, but the result is such as could have been attained in no other way, save by the expenditure of

perhaps ten times the money. Only a man very sure of his self-control may wisely undertake to indulge in such collecting. The collector of small means must sternly determine that nothing shall betray him into buying any article that is not a great bargain. The moment that he persuades himself that he can for once indulge in an extravagance he is lost. If, however, he persist in his determination to buy nothing that is not well within his means, he will soon learn that he has only to wait and watch in order to get whatever he wants, and at his own price.

There are, at the same time, a few facts especially worth knowing to him who would learn the art of picking up such unconsidered

trifles in the way of household furniture and decoration. To begin with, the attitude of the buyer is of first importance. Not only must the man of moderate means sternly limit himself as to the prices he pays, but he must take care not to fall into the habit and attitude of the mere curio collector, lest he fill his house with only ugly and useless things. A poor man's home can hardly with propriety be an old curiosity shop, unless, indeed, he collect such things with a view to speculative sale. It must be borne in mind, too, that many dealers in second-hand furniture are the victims of convention and superstition. Nearly all of them believe that candlesticks are valuable only in pairs, so



A FIFTY-CENT CHAIR

that it is often possible to pick up a single candlestick at a price far below its real value. The handsomest of those illustrated in this article was bought for a dollar and a half, and the pretty little brass bedroom candlesticks for twenty-five cents. Andirons are harder to find at a bargain than almost any other article of old household furnishing, because they are steadily in demand. The second-hand shops abound in the so-called

Viennese coffee-pots, discarded by persons that found them too elaborate for daily use. These pots not only make excellent coffee,

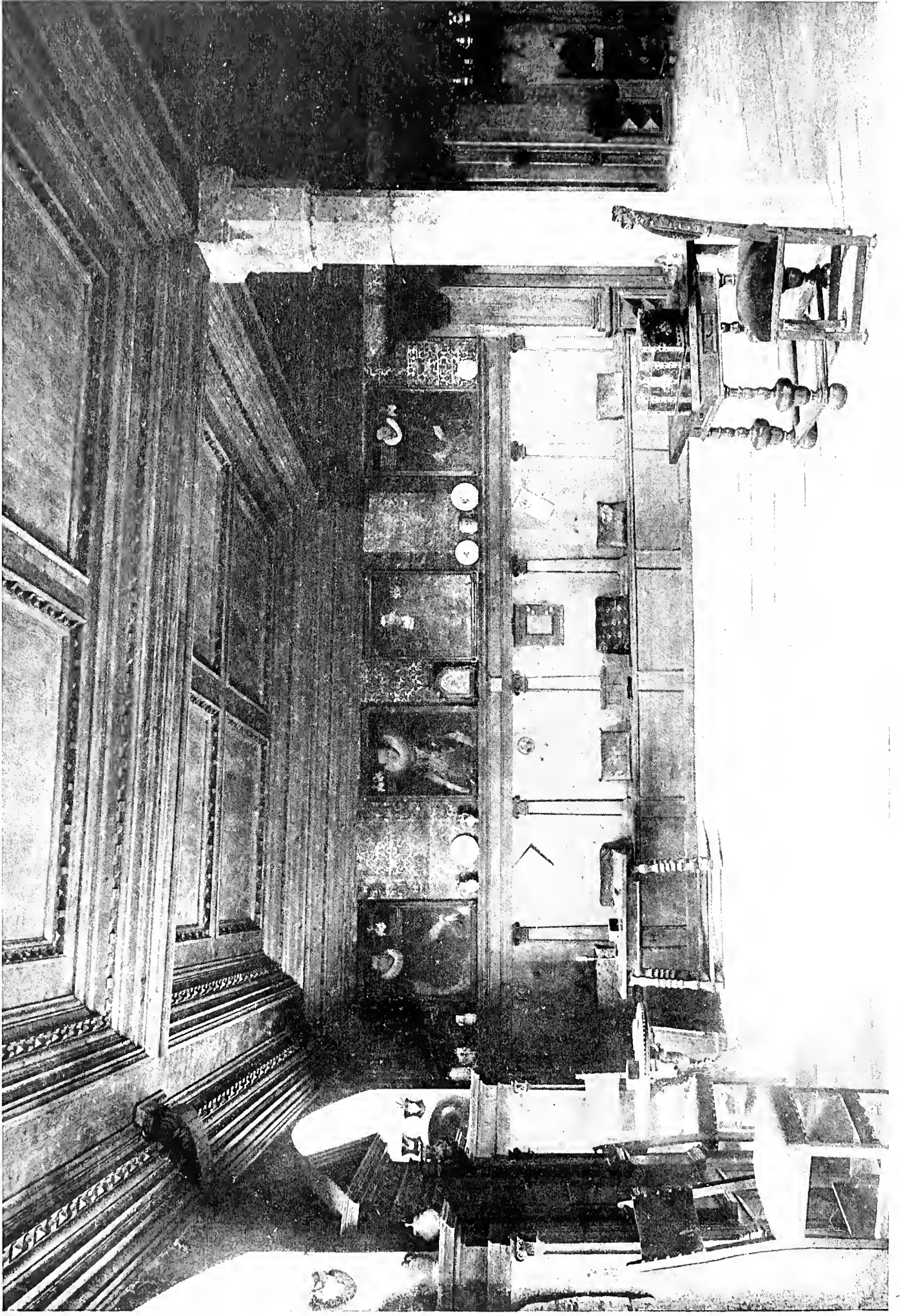


ROSEWOOD TABLE FROM A JUNK-SHOP

but serve as an extremely handsome decoration for the top of a sideboard or a china closet. They are far more appropriate as household ornaments than the brass warming-pans with which some persons incomprehensibly decorate their parlor walls, and vastly cheaper than the Russian samovars, lately so much the rage.

Finally, it is well to remember that only the best, modern, cabinet-made furniture equals in durability the furniture of fifty and a hundred years ago. Most modern, factory-made chairs and tables will rack to pieces years before a well-repaired old piece shows any sign of wear. It would be easy to prove that the truest economy for those of moderate means lies in the patient watching for what is sound and beautiful in second-hand furniture rather than in the purchase of modern imitations, however cheap or attractive in appearance they may be.

E. N. Vallandigham.



INTERIOR OF SCHLOSS TRATZBERG, NEAR JENBACH, TYROL

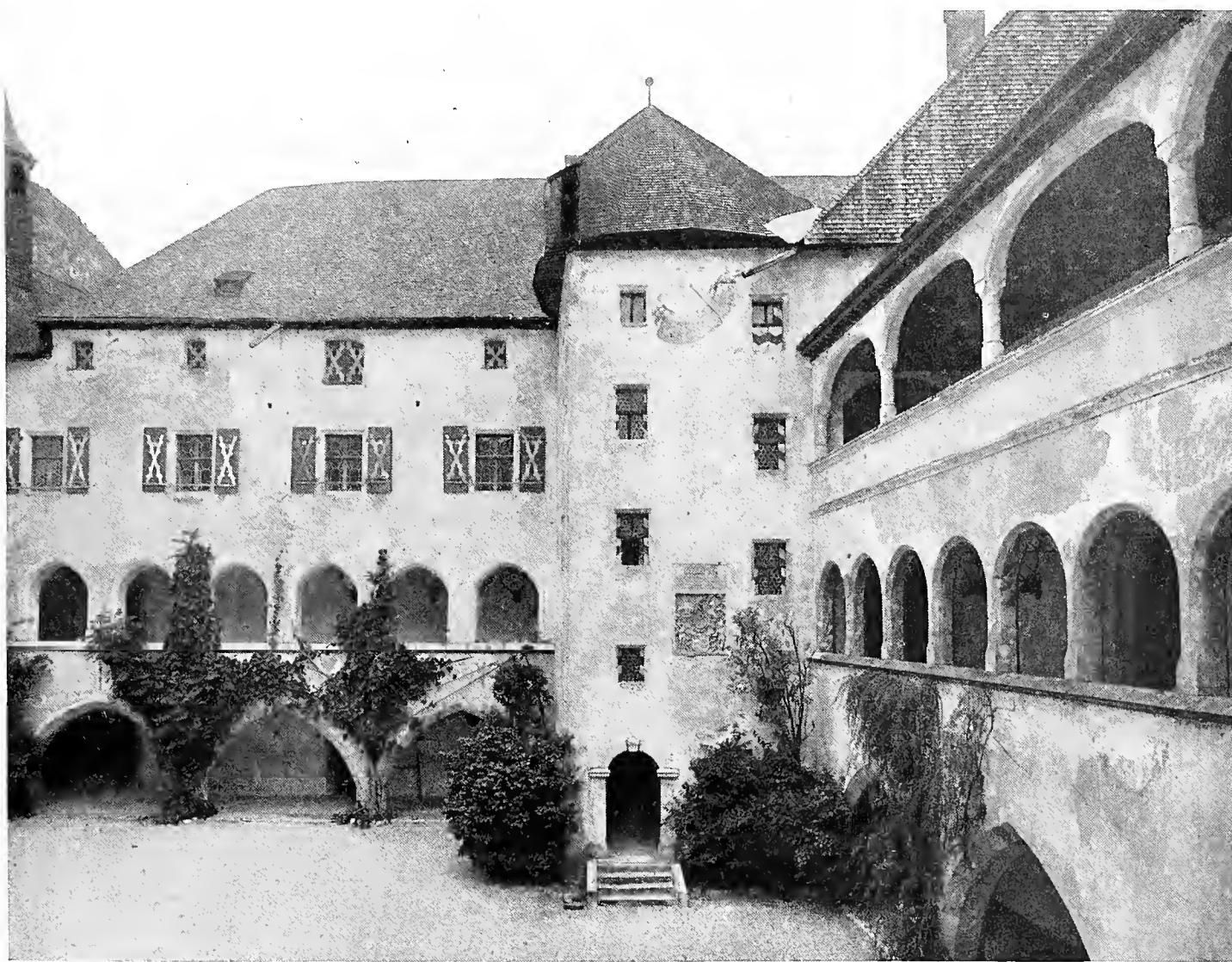
TYROLESE ARCHITECTURE.

III. FEUDAL.

Personal details in the lives of the Hapsburgs are set forth on a gaunt family tree in the Castle of Tratzberg. A solemn procession of stately Leopolds, Albrechts, and Elizabeths innumerable, covers the walls of an entire room. Each branch of the family is a group by itself, and under its armorial shields, deeds good or ill are lettered on a scroll in old German words and characters. A stag, shot on the mountainside, tells of a favorite Tyrolese sport as much loved to-day as it was, centuries ago, when the castle knights refused to rise at the sound of the chapel bell, but were ever ready to spring at the blast of the *jäger's* horn. Tradition has it that an impious warrior, when yawning at the call to mass, and covering his head with the bedclothes, was frightened by the crash-

ing of the castle's foundation and the trembling and shaking of the walls. Casements were shattered in their frames; and sharp echoes they must have waked, for as many windows as the year has days, has been a boast of Tratzberg. The reluctant knight was called to the homage the bell enjoined, and the castle folk, who rushed into his room and found his corpse, saw another vision for their fireside myths.

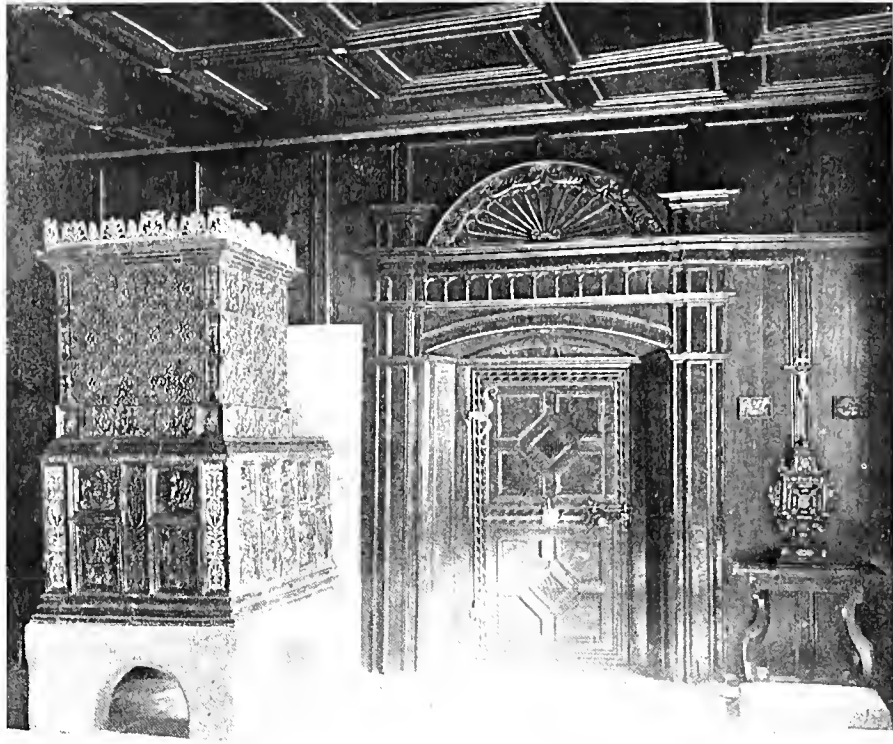
The building of the Castle of Tratzberg in the XII Century has been ascribed to one of the powerful Rothenburgs. Three hundred years later, its master was Christian Tänzel, a prosperous proprietor of the neighboring mines. He was ambitious to bear the proud title of the "Knight of Tratzberg," and its bestowal upon him meant good fortune for the castle. No means were spared in beautifying the building with paintings and marbles, and in making it a wonder of the



THE COURTYARD OF SCHLOSS TRATZBERG

NEAR JENBACH, TYROL

country round. In 1573, it passed to the Fugger family; it is now owned by Count Enzenberg, who has appropriately placed in the different rooms a collection he has made of old furniture and objects of native handicraft. He keeps the building in good repair, and occasion-



INTERIOR

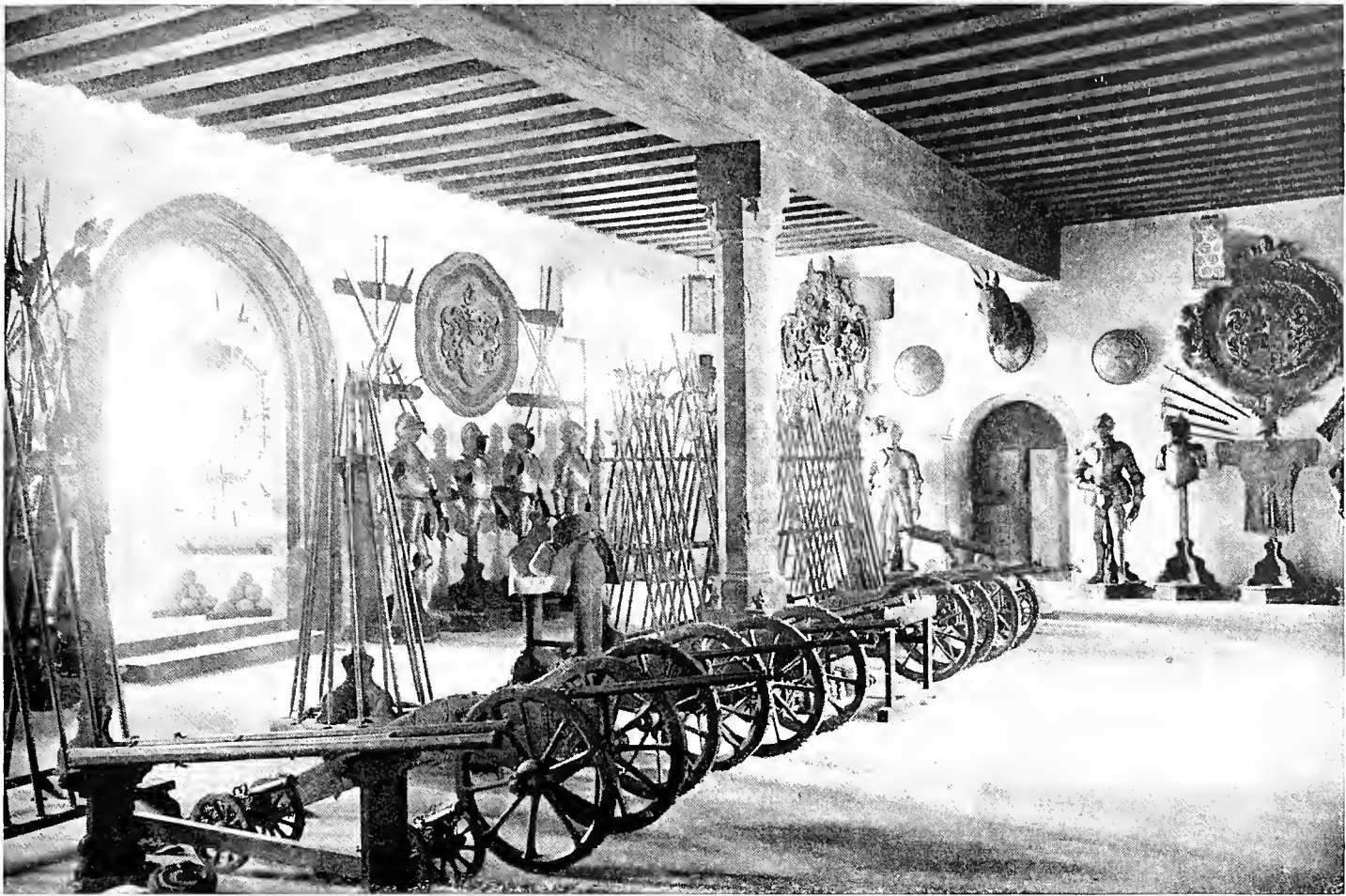
SCHLOSS TRATZBERG

ally makes it his home. The castle stands between Jenbach and Schwaz, on a wooded hillside descending to the north bank of the River Inn, and three hundred feet above the surface of the water. In the name of the little village of Buch, on the opposite shore, the abundance of beech trees



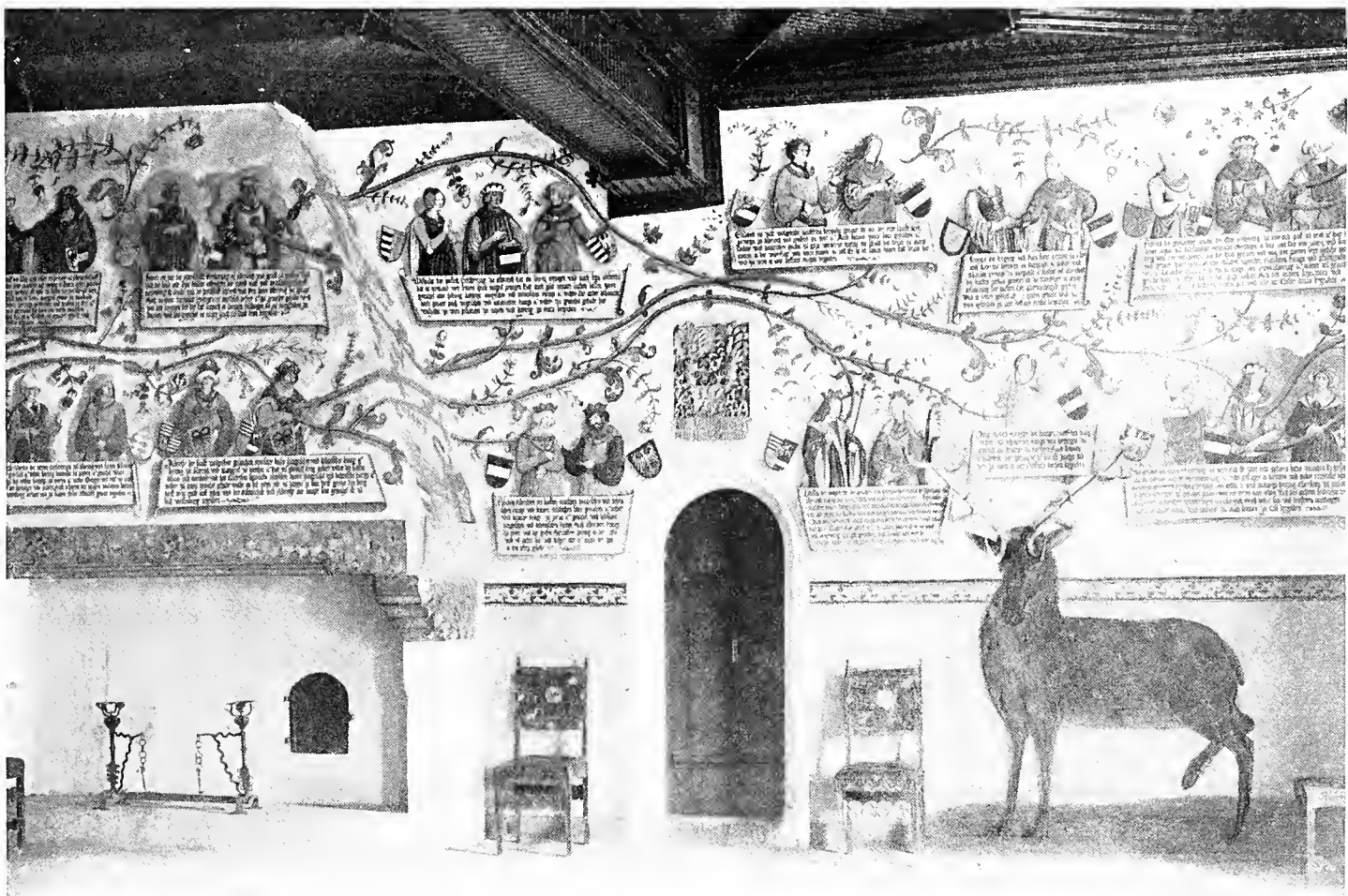
A GALLERY

SCHLOSS TRATZBERG



THE ARMS ROOM

SCHLOSS TRATZBERG

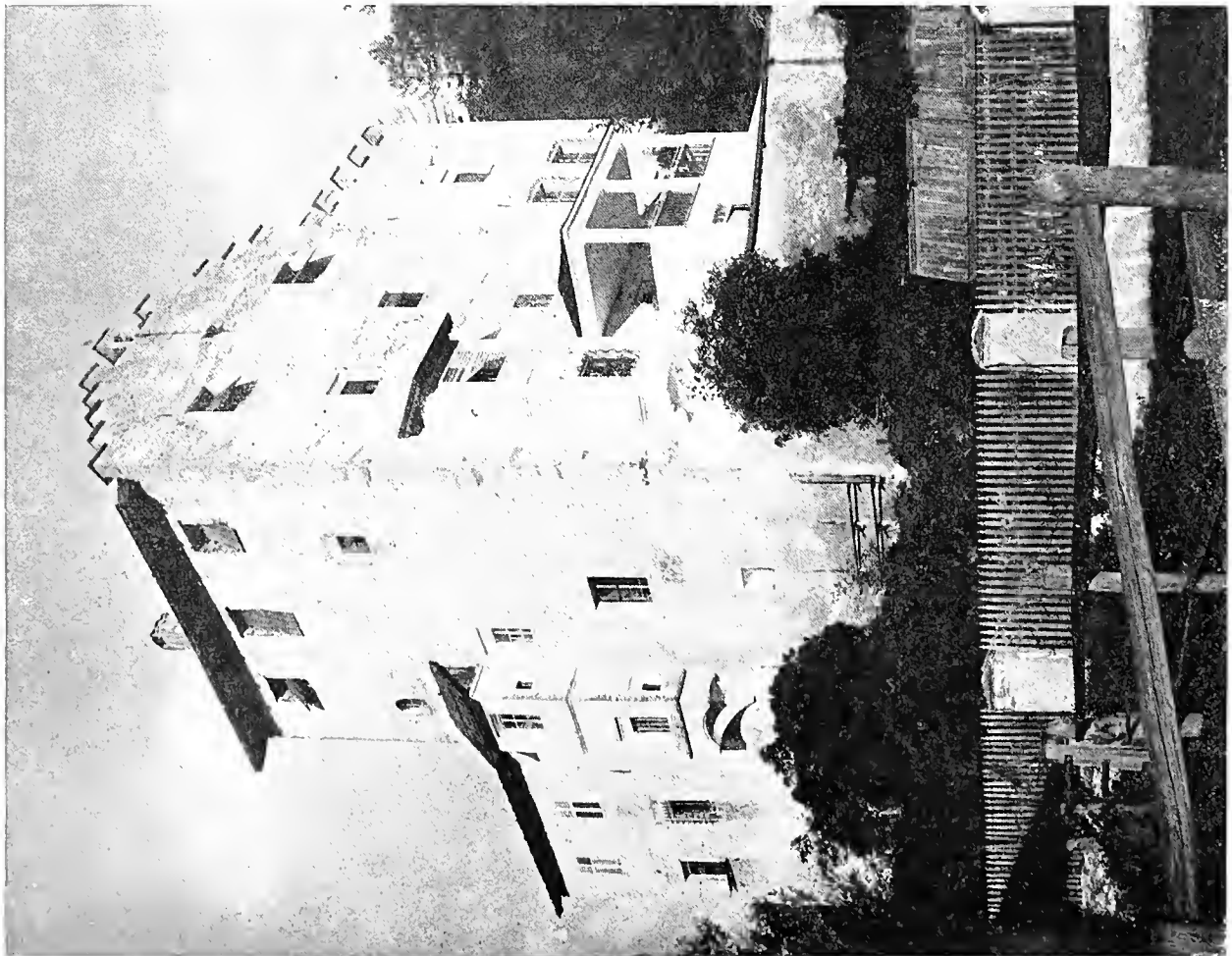


THE HAPSBURG ROOM

SCHLOSS TRATZBERG



BURG REIFENSTEIN



SCHLOSS THUMBURG

in the neighborhood is celebrated. They outnumber the pines on the low green summits which surround the castle, and agreeably diversify the scenery of the Alpine foothills, making them seem like green gardens. Here and there amid the verdure rises a château, a ruin, or the green copper roof of a curious village church.

Tratzberg is justly celebrated for its intrinsic rather than its historic interest. Its construction was neither prolonged



INTERIOR, BURG REIFENSTEIN

nor interrupted. The building, as a whole, was completed at one time; and is unusually coherent and uniform, partaking alike of the Renaissance and the Gothic. There are vagaries of interior detail, to be sure, but the whimsical use of motifs in minor parts is quite redeemed by the dignity of the larger apartments. The "Arms Room," which now contains a collection of ancient implements of warfare, is of fine simple parts less ornate and pretentious than the



A GALLERY, BURG REIFENSTEIN

NEAR STERZING, TYROL



SCHLOSS ENN

"Fugger Room," whose ceiling is of unwrought beams, but whose walls are wainscotted to a third of their height; and against the plaster above huge dim portraits stand out in sharp contrast. The "Hapsburg Room" has the ugly ceiling which usually results where the Tyrolese abandoned plain wide planks in their woodwork, and aimed at an outward show by intricate and awkward paneling in which narrow beaded boards, thoroughly commonplace, are used.

Schloss Thumburg overlooks the Eisak at that part of the river's course which has made the neighboring town of Sterzing of great strategic importance, and has given it renown in Tyrolese annals for the conflicts which occurred there between Austrians, French and Bavarians. Though upon the southern slope of the mountain divide, the castle is thoroughly northern in its character; but like the picturesque château, photographed by the writer in the Pusterthal, neither in size nor in formida-

ble appearance does it pass far beyond the minor domestic buildings. Reifenstein stands near by, and is larger and much more interesting. Old chronicles relate a melancholy history of its jealous master who, envious of his neighbor's beautiful châtelaine and discovering the happy couple sitting under the hornbeam in their garden, drew his arquebuse and killed the innocent lord. The devil, it is said, strangled Reifenstein for the crime and banished his spirit to the mountains, where with sudden storms and forest fires, he still mystifies the credulous peasantry. The gloom of the legend seems to linger in the castle. The exterior is without ornament,—bald and shadowless. Inside, the use of wood administered to the scanty comfort that a rough age needed. Plain wainscots of pine, lining entire rooms, mitigated the chill damps that were felt in the repose that followed the rush to arms, the clattering of mailed feet over wooden galleries and the confusion of attack.



SCHLOSS ENN, NEAR MONTAN, TYROL



THE COURTYARD

SCHLOSS ENN

In traveling southward toward the first straggling streets of Neumarkt, the towers of Schloss Enn appear proudly inaccessible on the dark, green hillside above the little village of Montan. The outer works have crumbled away and the road which leads to the gate is scarcely discernible. High battlements, a picturesque succession of gables, the little belfry of the chapel, are dominated by graceful towers with *erkers* at each corner. The whole exterior depicts as much elegance as is afforded by any feudal building of the country. In the courtyard is a picturesqueness of a different kind, not obtained by a too facile surface elaboration, or by painted ornament, but by chimneys of capricious shape, cleverly-turned balusters, tall posts and lank brackets supporting far-overhanging roofs.

At the little village of Wälsch-Michael the Adige is left behind, and turning westward through the narrow Rochetta defile, guarded by the lofty Torre della Visione, the broad

Val di Non is entered. At the sight of an isolated eminence, crowned by Castle Cles, one imagines oneself in Italy. The frontier of two races has been passed and the ponderous northern *burgs* are no more. The spirit of the buildings has defied the shifts of political power which placed Austrian rulers over a Latin people. Renaissance and Italian Gothic are so intermingled that the combination is sometimes nondescript, but always original and suggestive. The radiance of Italy has dispelled the somber clouds which shadow the lives of the Teutons, and listless ease seeks surroundings of a brighter kind. Surfaces are decorated more elaborately and skilfully than before, pilasters and light mouldings appear, and proportions become more attenuated. The column is slender, and its cap is no longer a shapeless cube; but an abacus has been added, and the bell is fairly well carved. Interior wainscots have been discarded, for warmer



THE COURT

CASTLE VALERIO



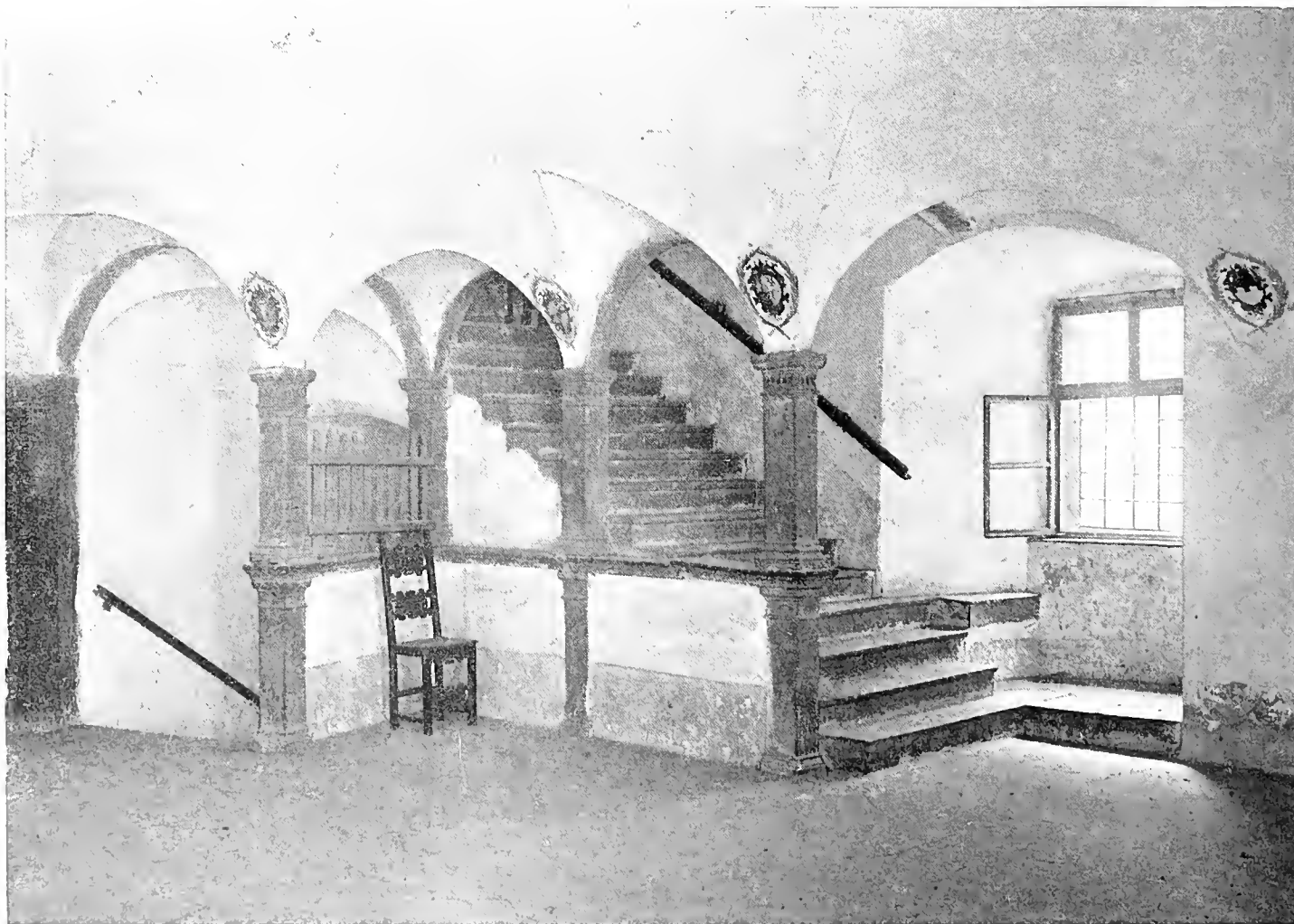
WALL DECORATION

CASTLE VALERIO

airs have waked the desire for the cool shelter of bare walls. Roofs are flat, and project to form a considerable eave, from which the noon sun casts long shadows.

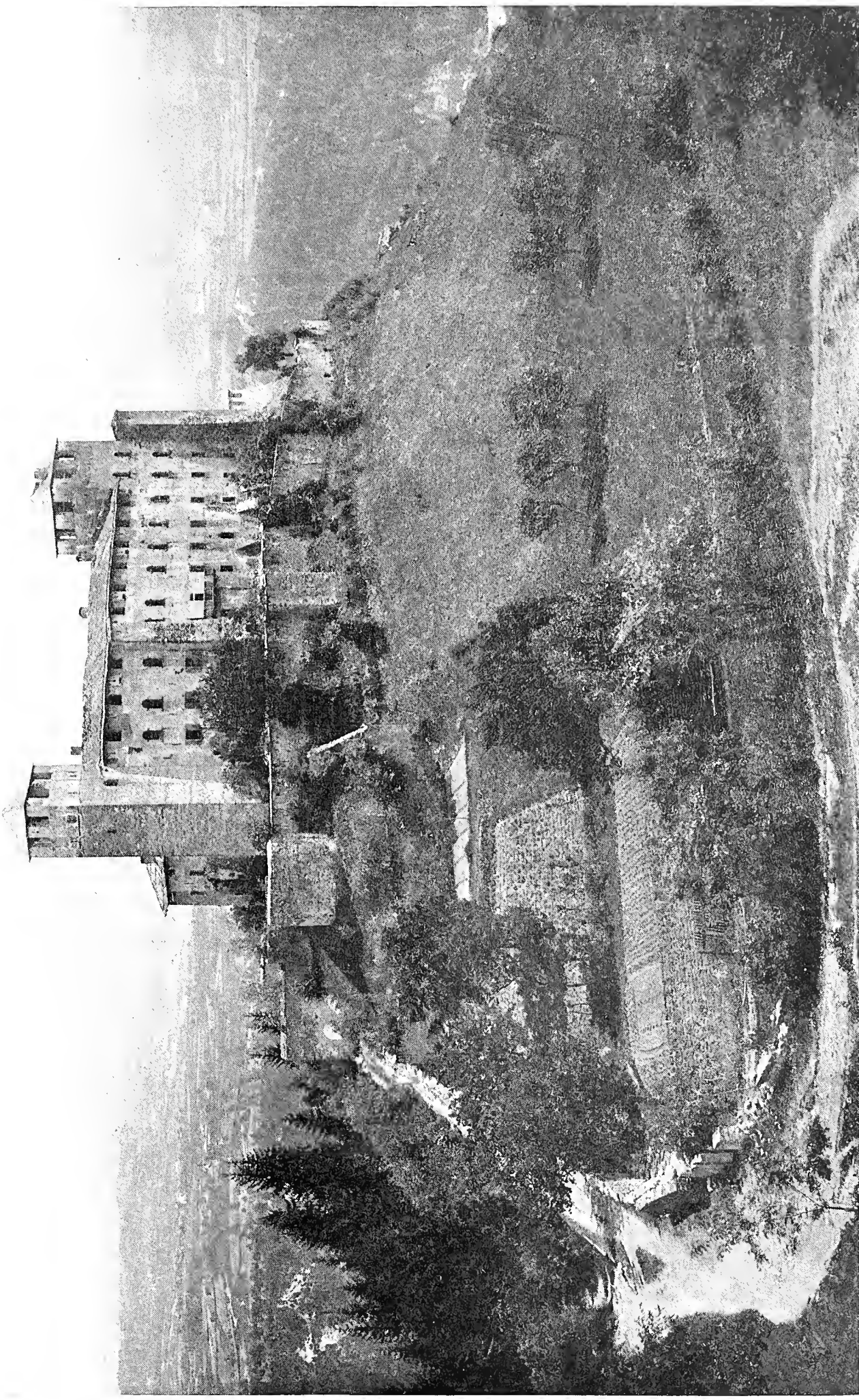
The characteristics of the Italian Tyrol,—differing from those common to the North,—are well shown in Castle Valerio, and even clearer at Trent. At that town the Tyrol is

a mere name. Like everything in and about it, the Castello Buon Consiglio is thoroughly Italian in all but the skill with which its features have been executed. The building has grown around a tower reputed of Roman origin; but in the castle itself, there is no rudeness of such a distant age. It was occupied for many years, by the famous



ROOM IN CASTLE VALERIO

VAL DI NON, TYROL



CASTLE CLES, VAL DI NON, TYROL



WALL DECORATIONS



CASTLE CLES

Bishops of Trent. The four wings enclose a court where lounging soldiers of an Austrian garrison wonder at the castle's past splendors as they are revealed by delapidated frescoes on the vault of the colonnades; and doubtless they give thanks that their own lot, however poor it may be, has not cast them into the dark cells which penetrate the sub-basement. Still more completely the Italian spirit shines forth in the façade of the Palazzo Salvatori (formerly Tabarelli), a city palace, said to have been designed by Bramante, and in many street-fronts of smaller buildings in Trent; while Castle Toblino, on a point of land extending into the lake of that name, beside the road to Arco, illustrates the buildings of the open country as it approaches the Italian frontier. That so many feudal buildings of the Tyrol have survived to the present day is the more surprising when we remember the strife

that surged about them during the Middle Ages and continued even to the beginning of the last century. By terms of treaties or force of arms European monarchs repeatedly took over the province; and quite as often did

Austria, with the help of the Tyrolese themselves, regain it. The ruins of once redoubtable strongholds exist in every section of the land, and so complete is their decay that with difficulty are their walls distinguished from the rocky heights from which they rise, and with which they have become one. The remains are too fragmentary to have an architectural beauty; but associations of poetry and of legend reign over them undisturbed. Straggling herds wander through their courts, and in the shade of wild growths of trees, which creep up to their foundations, disport the disembodied spirits of former lords. The hobgoblins of cradle songs issue from them at



THE COURTYARD, CASTLE CLES



CASTELLO BUON CONSIGLIO

TRENT, TYROL

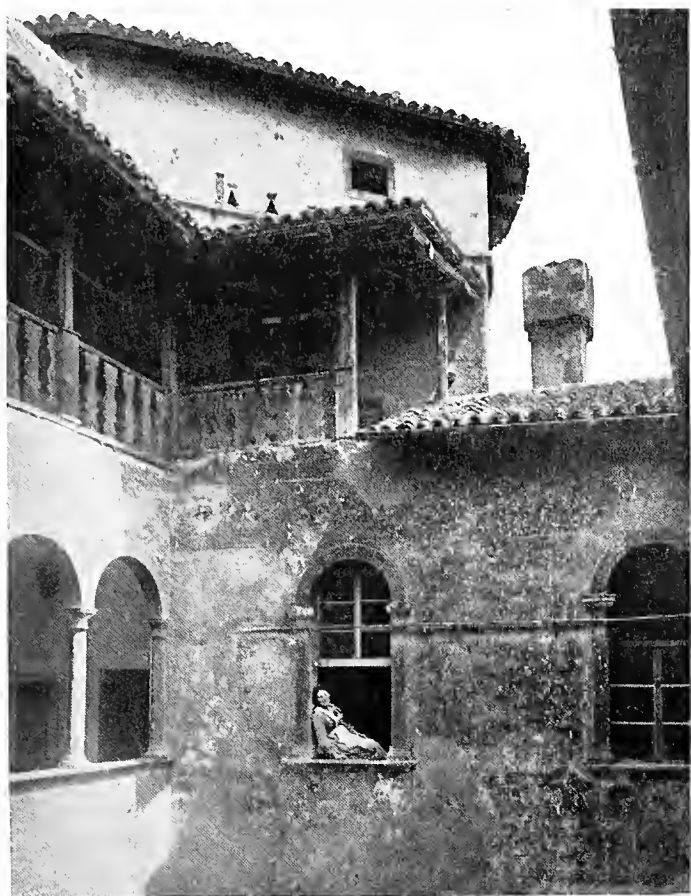
night, in moonlight shadows dealing vengeance or misfortune, and repair to them at dawn. Destruction has been wrought as often by shocks of nature as by human violence. The granite masonry, well withstood the attacks of early arms. With implicit faith in it, did the commander of Kufstein taunt the Emperor who demanded his surrender by leaning from the bastions and sweeping the walls with a broom after each futile volley of the attacking guns. But the strength of a superstructure availed nothing when foundations themselves gave way, or land-



COURT, CASTELLO BUON CONSIGLIO

slides from heights above precipitated tons of yielding mountainside.

Prosperity of one kind or another is needed that the art of a country may appear; and though the highest art has been brought forth when prosperity included luxury and enlightened ease, the victors who wrested power from others, and reared castles and fortresses, had their own artists to express the character of their epoch. The prosperity of peaceful pursuits, of manual skill, of mining and of trade, which steadily increased in the Tyrol as the feudal system was weakened, is another



CASTLE TOBLINO



PALAZZO TABARELLI

matter; and as we shall see, it too was surrounded by beautiful outward forms peculiar to itself. That they served their purpose is not the least that we can say of the forms of the military building art—many of them uncouth as they are—which exist in the Tyrol. The infantine decorations which unlearned hands strew over the

halls of knights or upon altars, which roused to fighting rather than to prayer, were the ultimate skill of the time. They uttered the keenest feeling of a semi-barbaric day, when strife was pleasurable work, when bravery was enthroned and contemplation was disdained.

Herbert C. Wise.



CHÂTEAU IN THE PUSTERTHAL

MR. GOTCH'S "EARLY RENAISSANCE IN ENGLAND."¹

FEW architectural subjects have been more thoroughly discussed, or profusely illustrated,—especially in recent years,—than the English Renaissance; but the fact that its earlier history has been less fully dealt with accounts for the recent appearance of a handbook by Mr. Gotch, in which he has endeavored to trace systematically the growth of architectural style in England, from the close of the Gothic period (1500) to the advent of Inigo Jones (1625). To a considerable extent the book is an exhaustive discussion of the brief text in Mr. Gotch's earlier work in two large folios, "Architecture of the Renaissance in England," published in 1894; but while those two volumes contain a series of large photographic reproductions of Elizabethan and Jacobean buildings, with a brief account of each, the present work is primarily a description and critical history of the very gradual appearance of the Italian style in England. Its sole object is to explain "the effect of this foreign influence upon our native architecture up to the point when it became predominant, and stamped our buildings with a character more Classic than Gothic"; and in this the book is quite successful.

The presentation of the author's thoughts and his statements of facts are not always so happy as could be desired, but his opinions are of authoritative value. There is scarcely a type of building, an architectural feature either external or internal, or a relative circumstance typical of the times, which Mr. Gotch has not treated of at considerable

length, although the environment of buildings and the subject of gardens is but briefly alluded to, and only in so far as architectural design was bestowed upon the terraces, walls and garden-houses.

The illustrations include drawings, half-tones, and collotypes, (a few of which have been reproduced from the previous work) and represent the best examples under the various headings of the book. Details of the buildings are unusually well set forth and many of the illustrations are from photographs made by the author himself. A chapter is devoted to John Thorpe and his drawings, without further discussion as to the sixteenth century "surveyor's" authorship of most, if not all, of the two hundred and eighty drawings in the Soane Museum; and in the final chapter, which is in substance the theme of a paper read by the author several years ago, it is quite evident that the idea of an architect, as his position is understood to-day, received its first striking embodiment in the person of Inigo Jones. On the whole Mr. Gotch has given us a comprehensive volume,

valuable either to the student of architecture or of history. He has appended a useful bibliography of selected works, dating as far back as 1450, and also a complete index to the text and illustrations. An unfortunate mechanical defect is the inferior manner in which the book is bound.

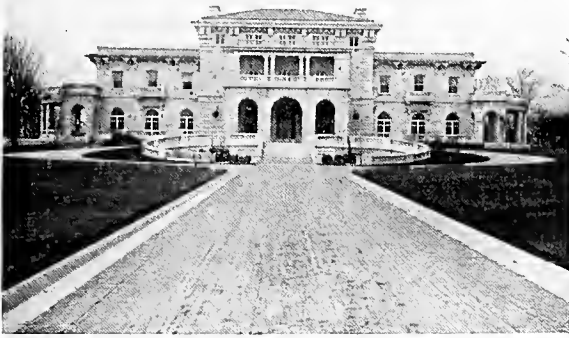


THE "SWAN" INN

LECHLADE

From "Early Renaissance Architecture in England"

¹ Early Renaissance Architecture in England: A Historical and Descriptive Account of the Tudor, Elizabethan, and Jacobean Periods. By J. Alfred Gotch, F. S. A. 231 ills. in the text. 87 full-page plates. B. T. Batsford, London, 1901. Imported by Charles Scribner's Sons, New York. Price, \$9.00 net.



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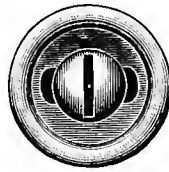
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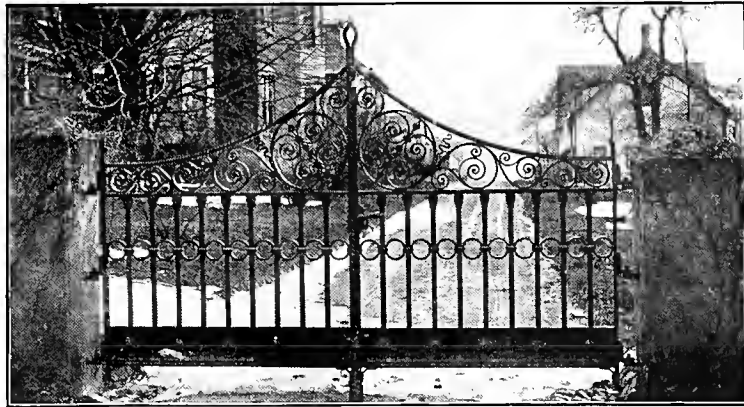
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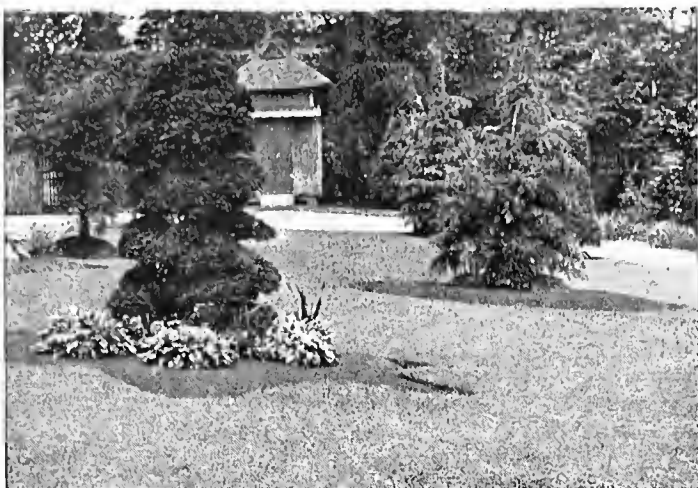
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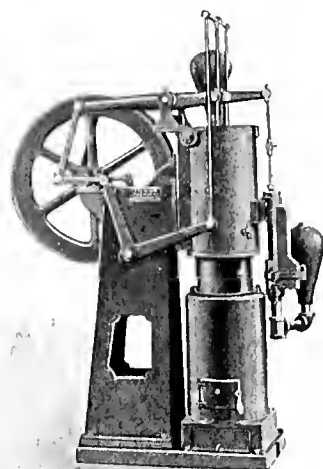
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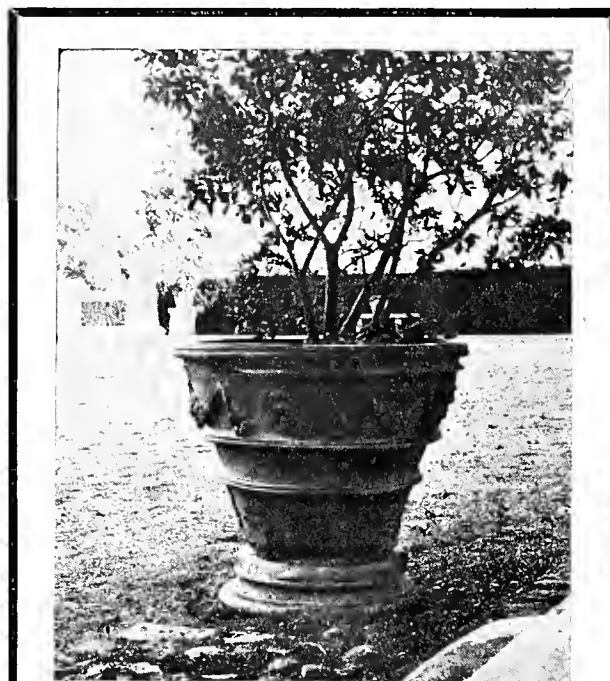
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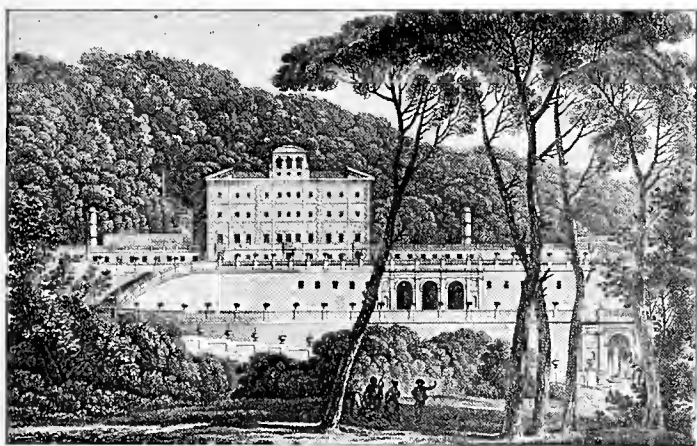
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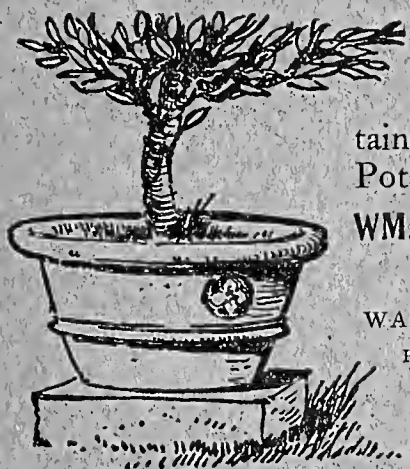


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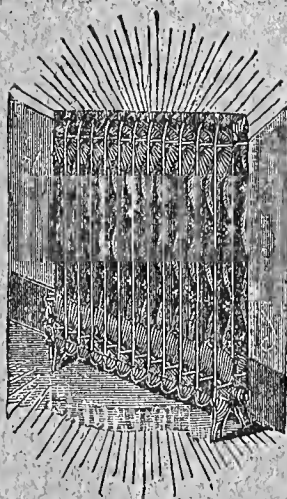


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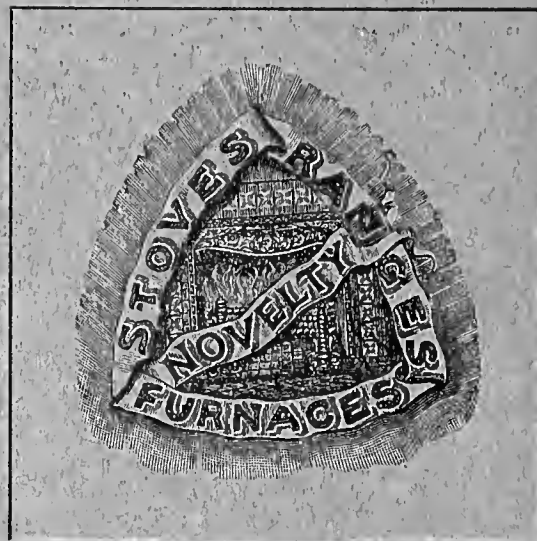
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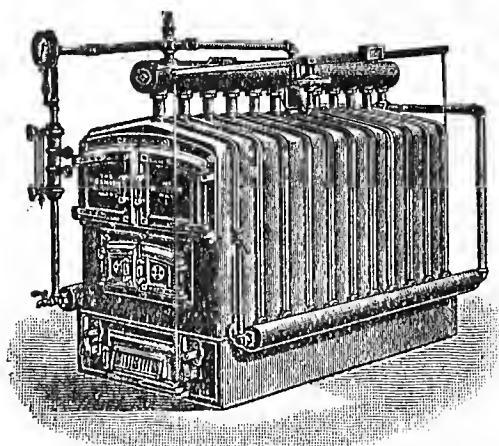
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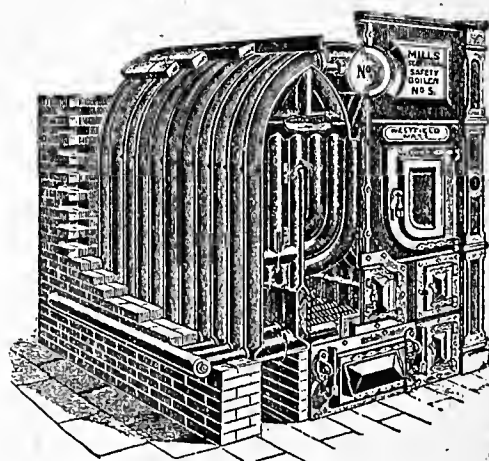
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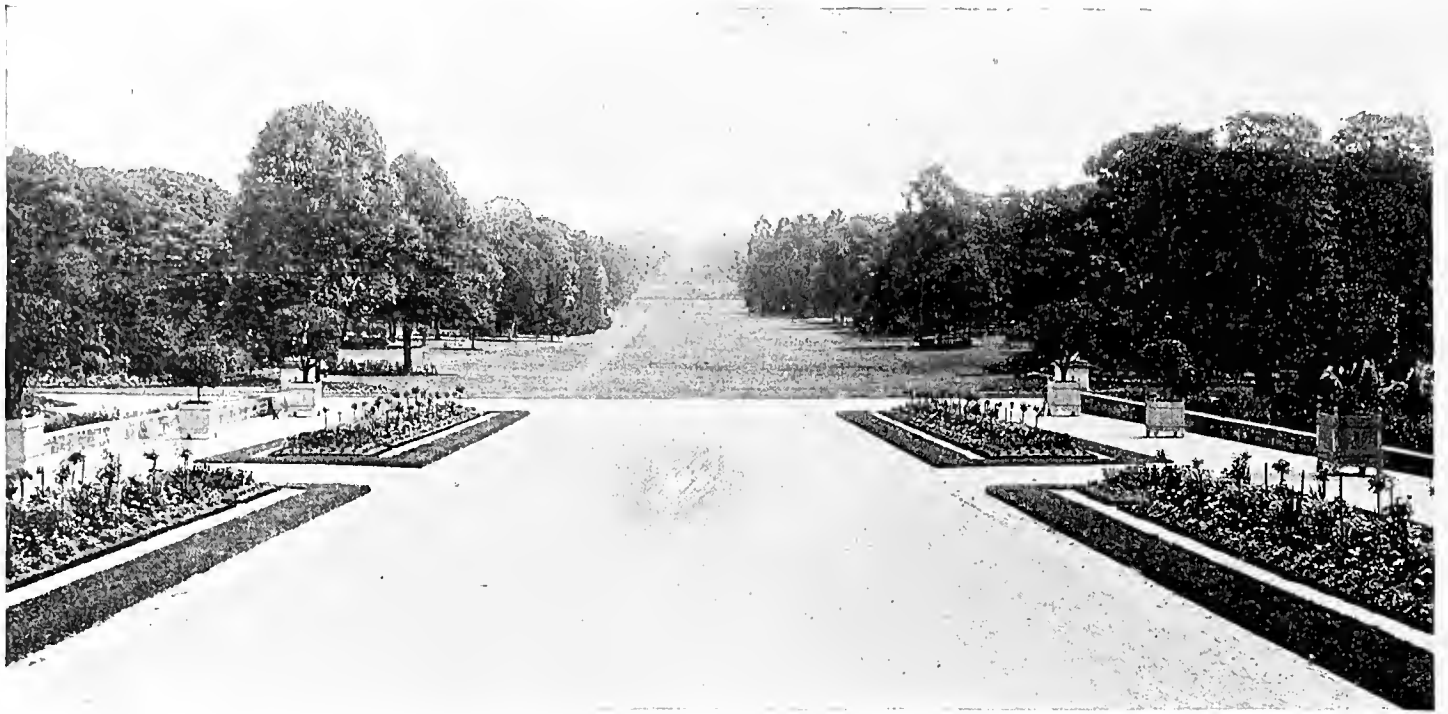
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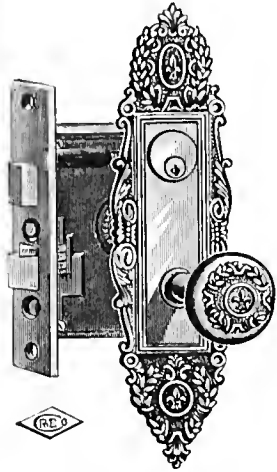
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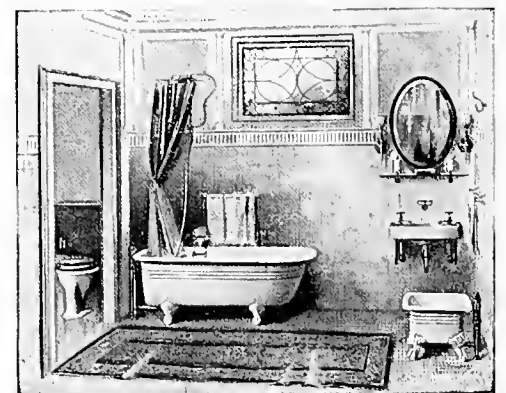
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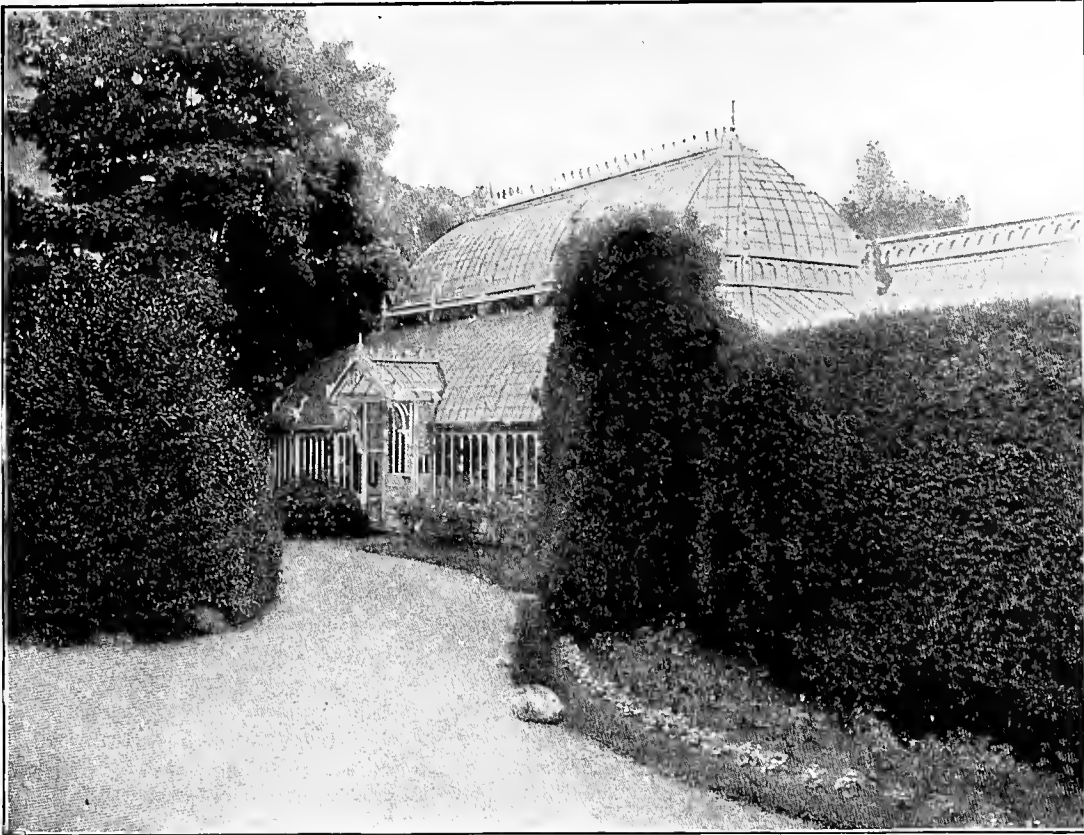


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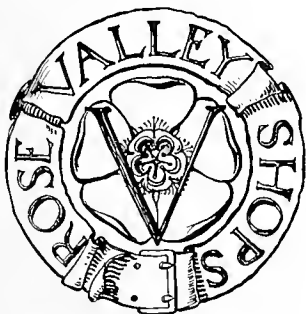
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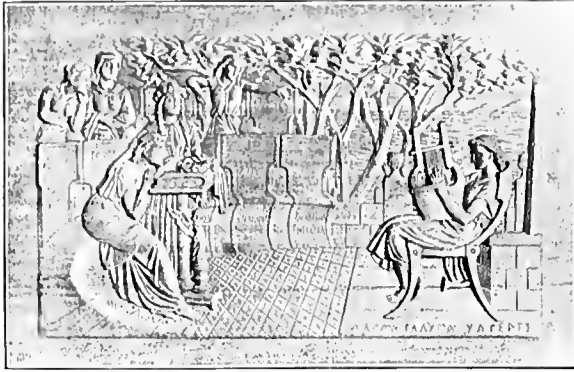


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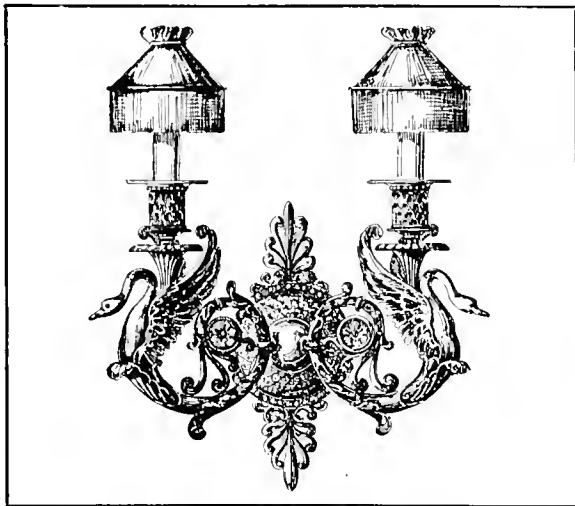


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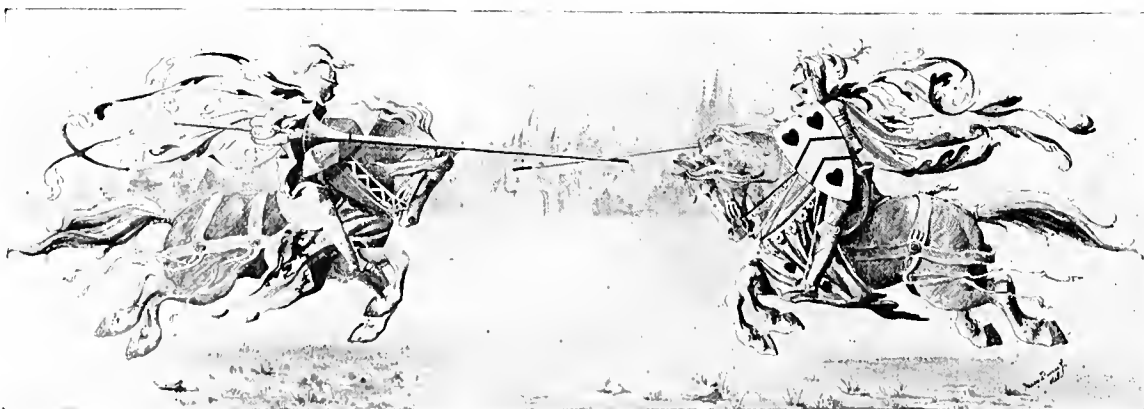
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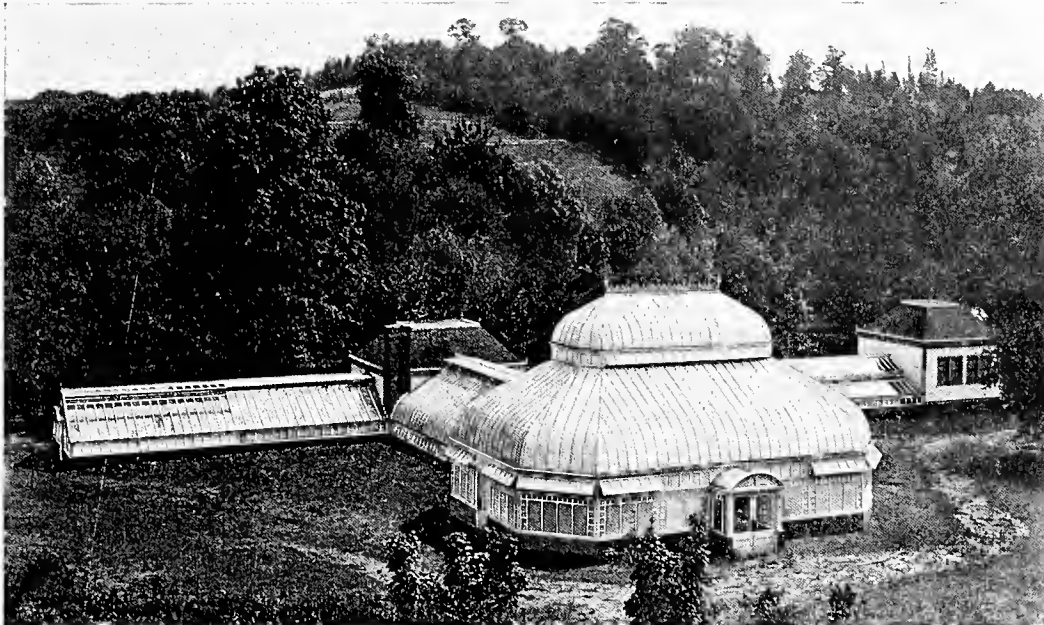
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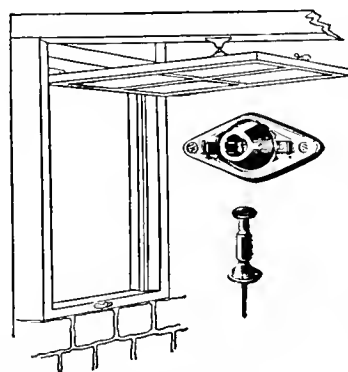
Contents for April

	PAGE
AN ARCHITECT'S GARDEN AND THE MAKING OF IT, by FRANK MILES DAY.	<i>Illustrated,</i> 127
THE GARDENS OF DUNROBIN CASTLE.	<i>Illustration,</i> 140
LAWS OF BEAUTY, by CLAUDE BRAGDON.	<i>Illustrated by the Author,</i> 141
A HOUSE AT TUXEDO PARK, designed by Howard, Cauldwell & Morgan, Architects.	<i>Illustrations,</i> 145
THE ORNAMENTAL MOVEMENT OF WATER IN CITY STREETS, by SAMUEL SWIFT.	<i>Illustrated,</i> 150
A DESIGN FOR A CONSERVATORY, by WILSON EYRE.	<i>Illustration,</i> 163
CORAL-STONE AND PALM, THE HOMES OF BERMUDA, by JOHN LANGDON HEATON.	<i>Illustrated,</i> 164



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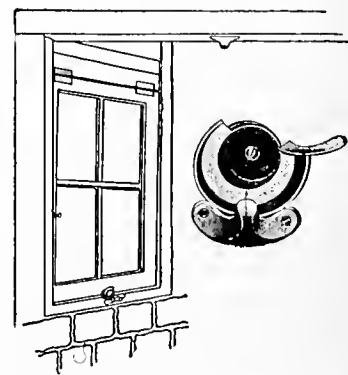
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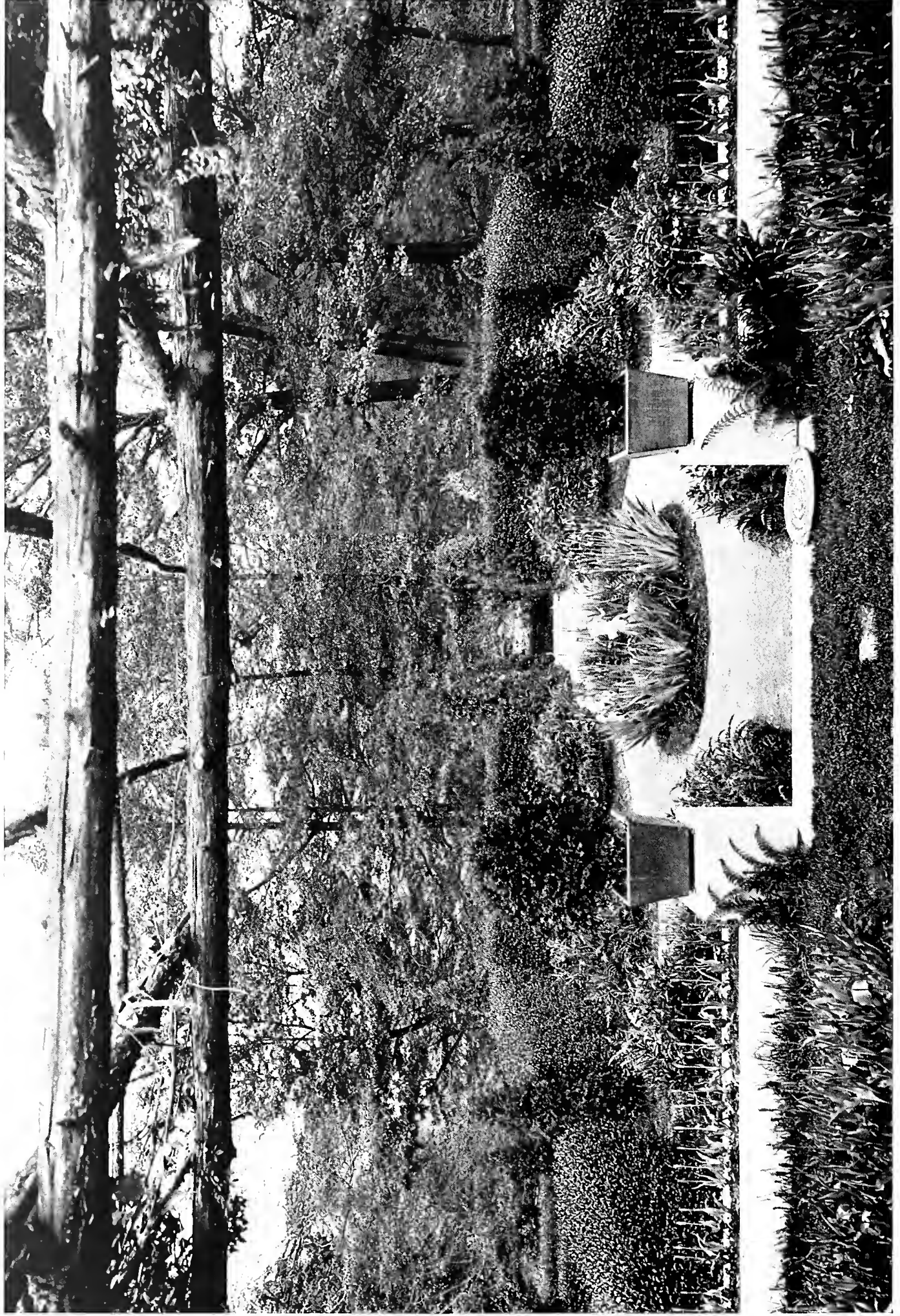
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THE FLOWER GARDEN, "SEVENOAKS"

House & Garden

Vol. II

APRIL, 1902

No. 4

AN ARCHITECT'S GARDEN

AND THE MAKING OF IT.

ON first going to live in the country—a word which in our case was merely a euphemism for the suburbs—we had to face the common problem of making tolerable, the bit of ground that fell to our share. The house was rather more attractive than are those usually built near Philadelphia to be rented to “home-seekers.” It had the advantage of large trees about it and a vacant lot beside it. Stimulated by a desire to have a garden, and having chanced on an owner willing to have his land used for one, it was arranged that the vacant lot should be covered by the lease. Altogether we had just an acre. It was autumn when we moved into the house. The great trees were no longer green, and though evidently oaks their exact sort was not easily made out. A few clinging leaves and fallen acorns gave the clue by which we found them to be black oaks—*Quercus velutina*. As there were just seven of them, all in their prime, what was more obvious than that the place, since it lacked a name and even a number, should be called “Sevenoaks.”

The winter evenings were spent in making sketches for a garden. The place for it was a

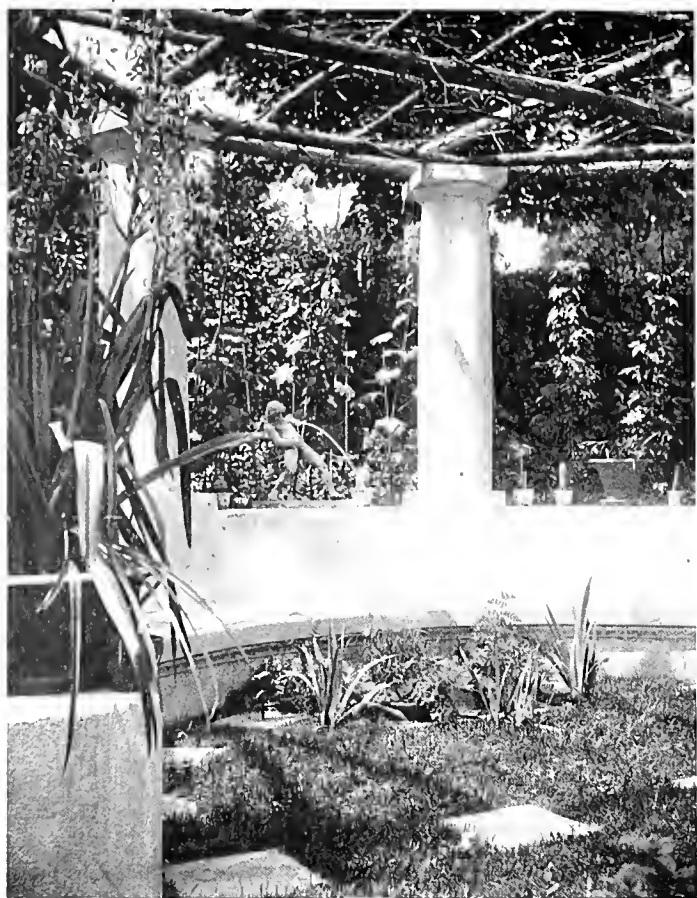
roughish hillside with a southerly exposure. It had a fall of twenty feet from its upper limit to the street. At the back there was a fence covered with honeysuckle; in front, were the oak trees, and some sweet-gums, a cherry and a dogwood. To the eastward

there had once been a fence-row, and in its place stood a line of old red cedars. Curiously enough,—and this was the key to the plan of the garden,—on looking directly out of the central window of the dining-room, the largest of these cedar trees stood in the line of vision. A mere accident, to be sure, but if the house had been placed with the sole end of putting this fine old tree exactly upon the axis, it could not have been done with greater precision. Obviously, the right thing to do was to lead a straight path along the hillside from the window to the tree.



THE FAUN WITH THE WINE-SKIN

Since the shadows of the oaks and gum trees would reach, even in midsummer, quite up to the path, it was evident that the flower garden should be above it. This was fortunate, for there the hillside was less steep than lower down under the trees. Even above the path there was but scant choice



THE EXEDRA



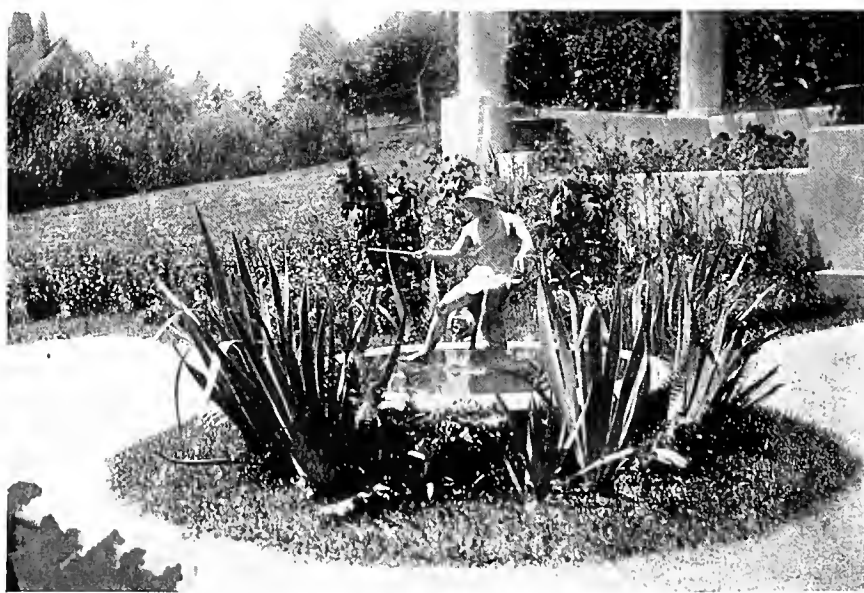
A COLUMN AND CLEMATIS

in the placing; for if put far to the westward, the house would cast a shadow on it in the afternoon, and if to the eastward, the cedars would shade it in the morning. The central line of the flower garden evidently had to run up the hill at a right angle with the long path, and its exact place was determined by two gum trees that stood apart from the rest and offered a pleasant ending to the vista on looking down.

It was to be a formal garden, — that went without saying. Training, inclination, sentiment, reason, all dictated it. And so our straight path was to be bordered by a well clipped hedge. The flower garden, for which a space was to be

levelled just above the path, took the form of a square, which we hoped some day to see enclosed with a wall of green. The ground rose above it to a spot from which everything looked its best; and if there were to be a shady nook from which to look out over the whole, that was evidently the place for it. Since it was also the end of the cross axis, there, if anywhere, should be some modest

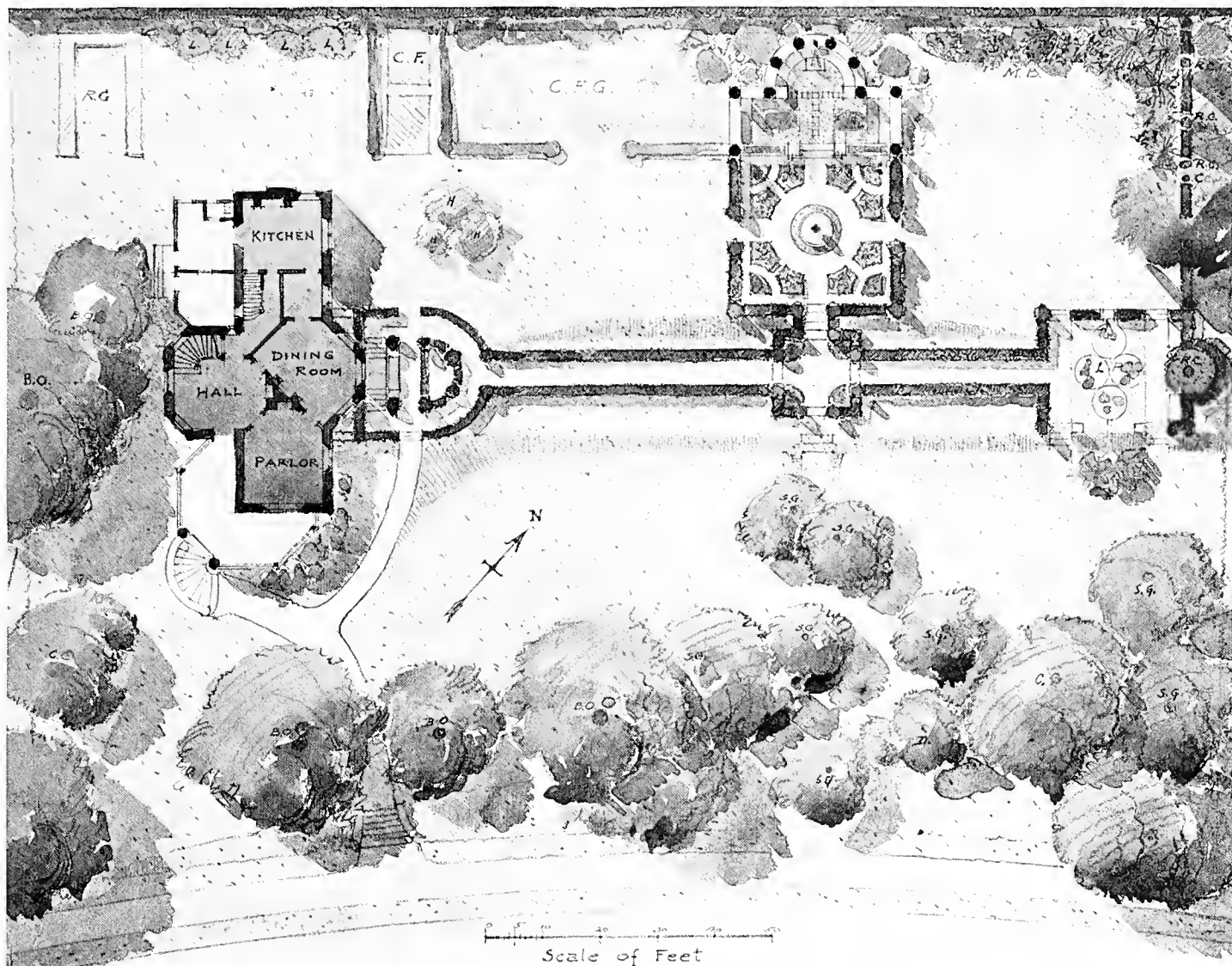
bit of architecture suited to an unpretending formal garden. So it came about that a curved seat, with simple columns bearing a trellis was designed for it. When March came our ideas had crystallized and our plans were ready. Then we set to work. The curved seat and



THE PATIENT FISHERMAN

its walls and columns, all of concrete, were soon made and plastered *al Italiano*. Terraces were levelled off; paths were laid down; and privet hedges set. In a month we were ready to put in phlox, larkspur, foxglove, bleeding-heart and the rest of the old-fashioned things

the growing things had made themselves at home than we had thought possible. The view of a part of the exedra taken but four months after the work was started, shows how willingly nature had lent a hand in the garden-making. Determined not to be with-



THE PLAN OF "SEVENOAKS," UPSAL, PHILADELPHIA

THE GARDEN OF MR. FRANK MILES DAY

C. F.—Cold Frames
C. F. G.—Cut-Flower Garden
L. P.—Lily Pools
M. B.—Mixed Border
R. G.—Rose Garden
L.—Lilacs

C.—Cherry Trees
B. O.—Black Oaks
D.—Dogwood
H.—Hemlocks
R. C.—Red Cedars
S. G.—Sweet Gums

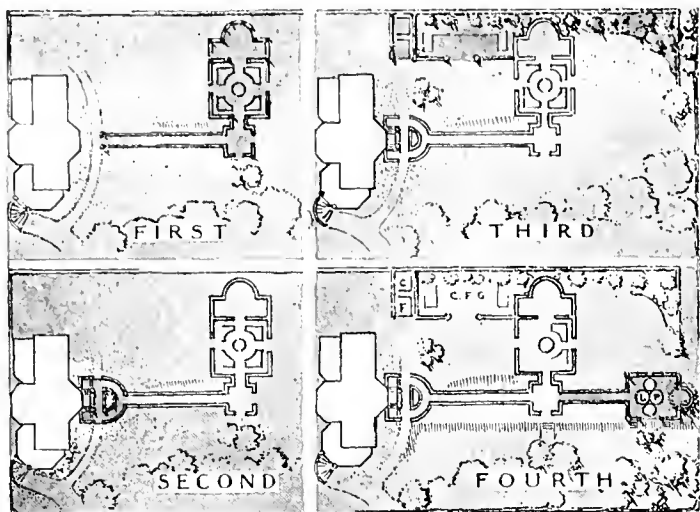
that were to grow within the box-bordered beds. Wild grape-vines were brought from the woods near by, and were started up the columns. Spice bushes and hollyhocks formed a screen at the back; and a kodzu vine thrived so mightily that by the end of summer we could sit beneath the shade of the pergola, quite shut in on all sides save the south, towards which we looked with no little satisfaction at seeing how much more quickly

out the sound of running water, we pressed into service reproductions of two bronze fountain-figures, found at Herculaneum. One of these, a rollicking faun, was put at the back of the exedra, so that the stream pouring from the wine-skin under his arm falls into a pool hidden among iris leaves and king-fern. The water soon reaches the second fountain, where a patient fisherman presides over a marble basin that once

adorned the mansion of the worthy Dr. Rush.

In those first months we made as much of the garden as we set out to build, but the straight path from the house ran only

straight from the house to the garden. But steps—if of marble—are costly things; why not then follow the same method with these as with those already in the garden,—buy old ones? Or, better yet, why not find



THE GARDEN'S FOUR STAGES

to the lower square garden, where grape-hyacinths and columbines filled the corners in the spring, where coreopsis made summer gay, and where the year ended with the glow of dwarf chrysanthemums. It was a trial to look out from the dining-room balcony at so pleasant a place, and yet be unable to reach it except by the front door and a walk around a crooked path. How pleasant it would have been to have had some steps



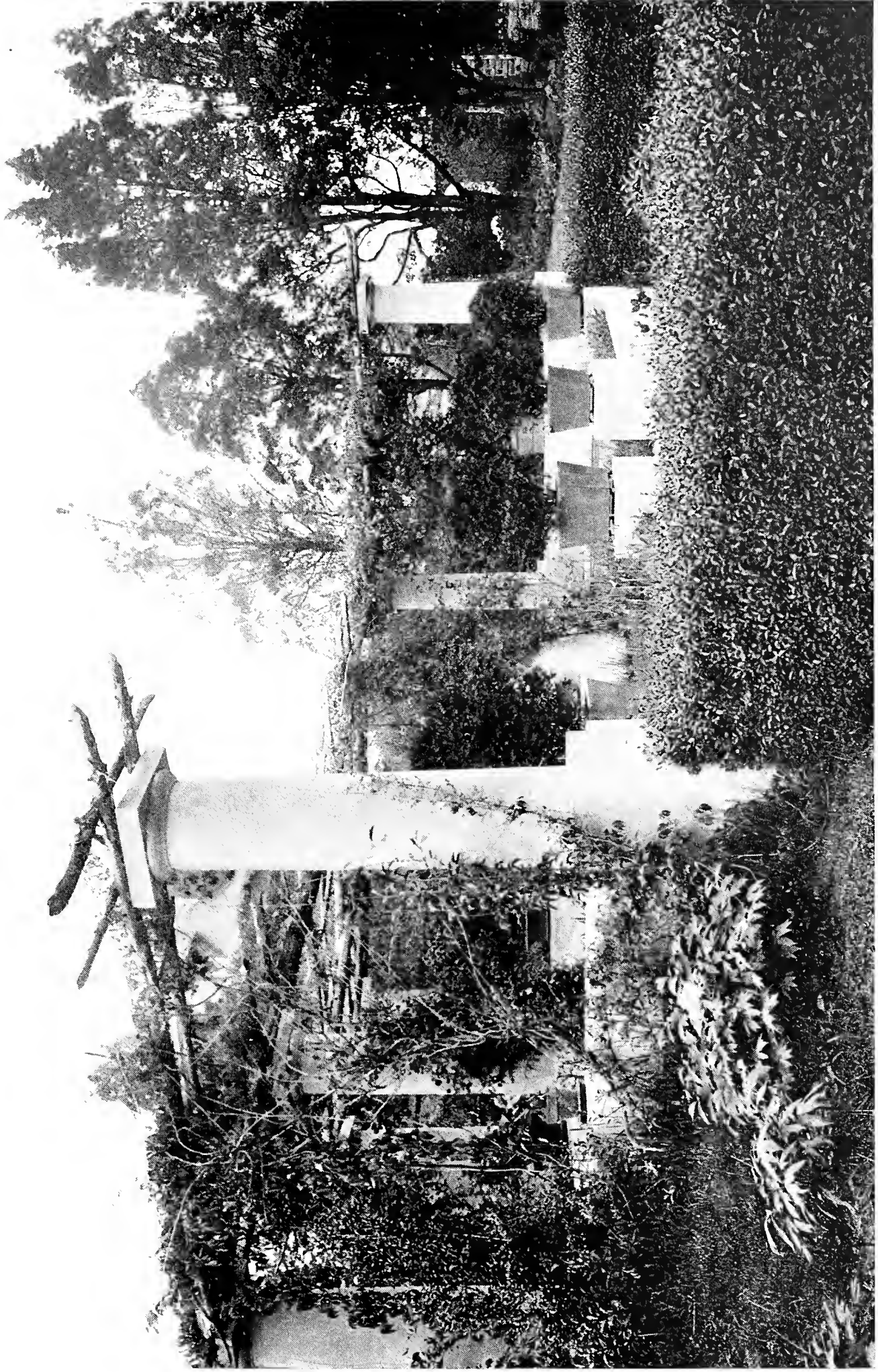
THE PERGOLA FROM THE HOUSE

a place where old houses were being torn down, and offer to take the steps away? No sooner said than done. It chanced that a great double flight, of years gone by, with its honest wrought-iron railing, fell to our share. The wrecker seemed glad enough to have the steps taken off his hands, if we would but pay for the hauling, and we were glad enough to get them on such terms. It took some little ingenuity to fit them to



BLUE FLAGS IN MAY

"SEVENOAKS"



THE PERGOLA IN SUMMER, "SEVENOAKS"



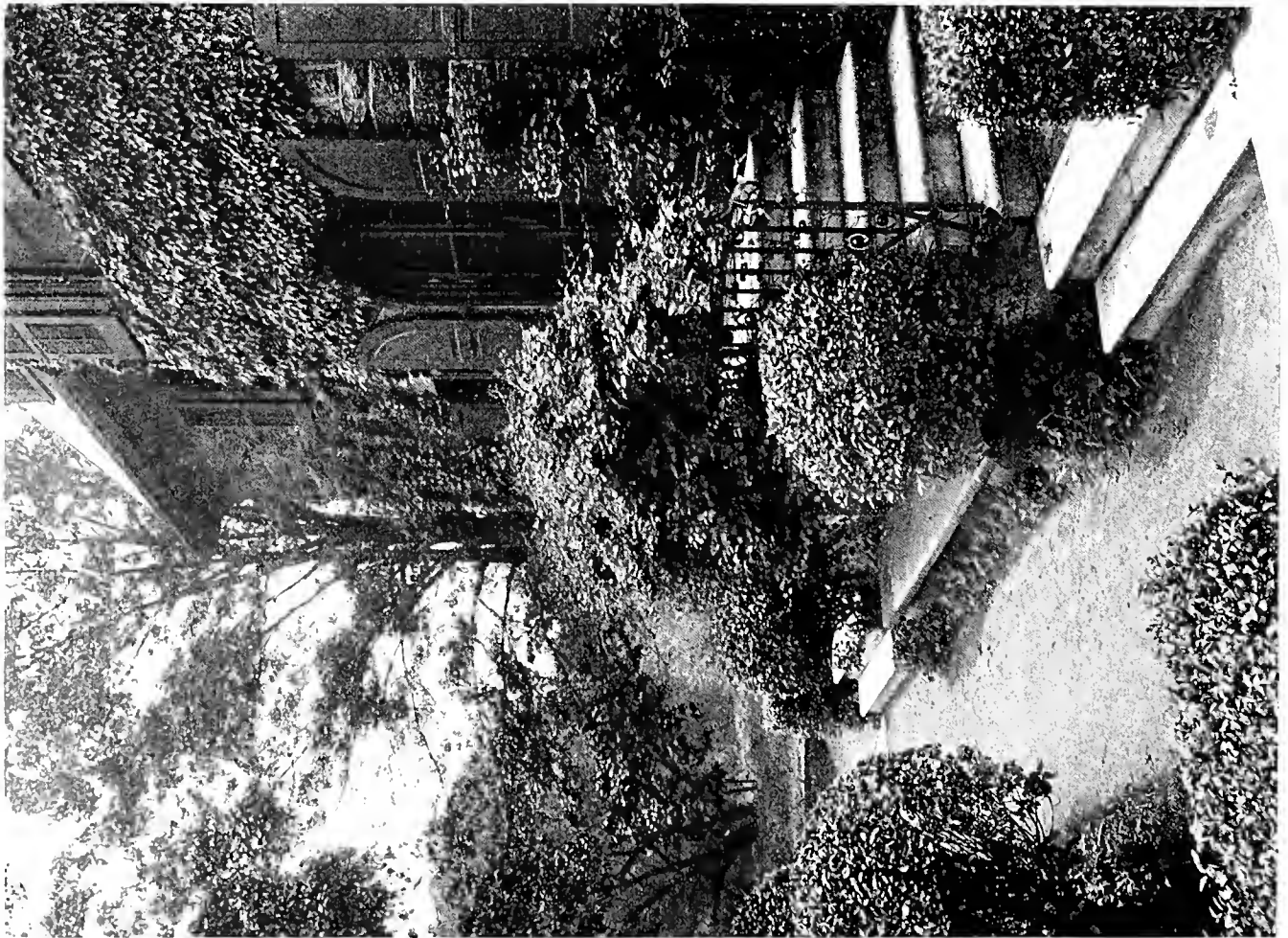
THE PERGOLA IN WINTER

“SEVENOAKS”



FROZEN RAIN

“SEVENOAKS”



THE OLD STEPS IN THEIR NEW PLACE



THE GARDEN ICE BOUND



ABOVE THE LILY POOLS



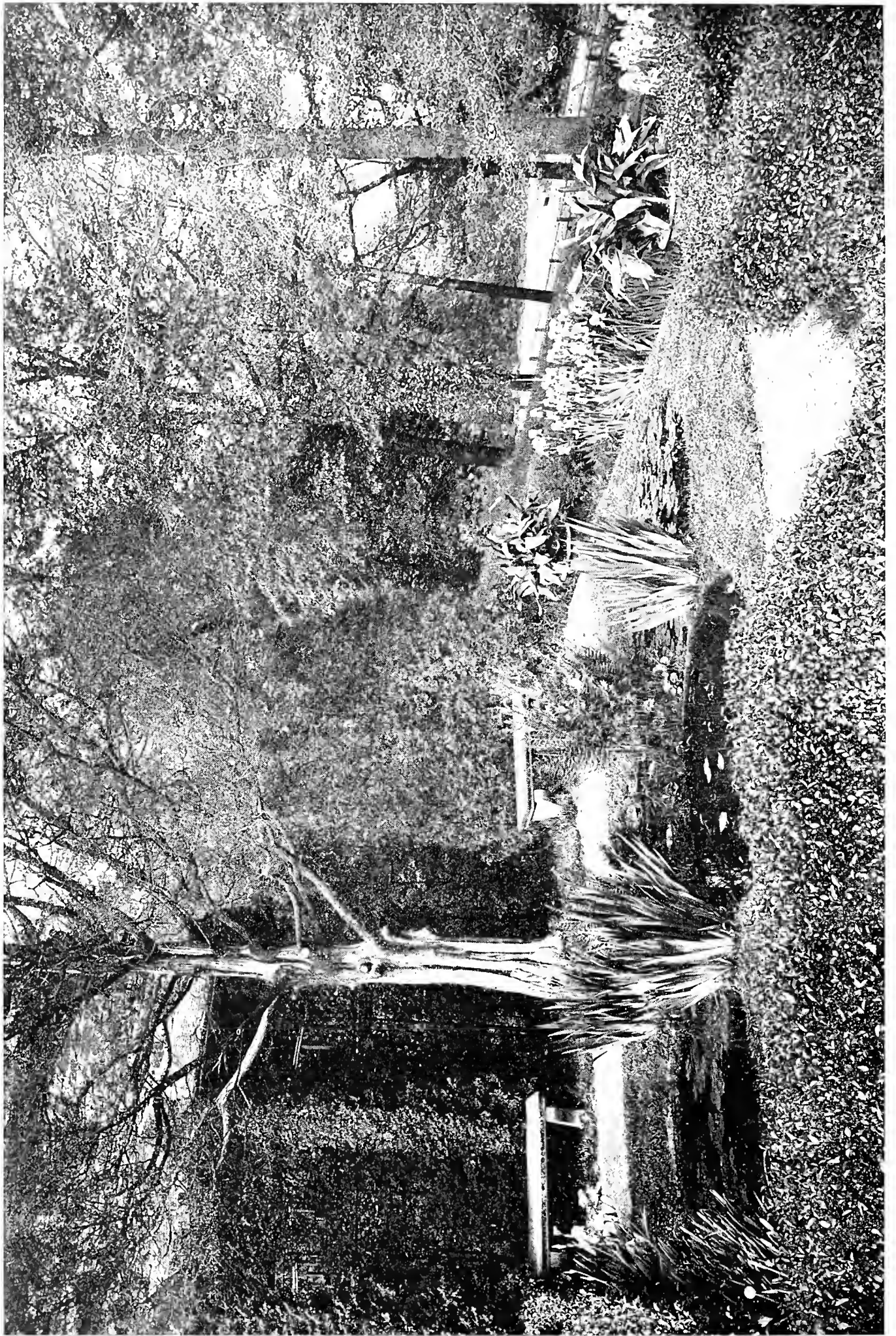
ONE OF THE OAK TREES

their new surroundings. The old slab of the balcony had legs put under it, and thus made a good seat. A curved path joined the two flights to the long walk, and a semicircular fern bed, with privet trees clipped as spheres, finished this part of the garden.

Though we cared much for the design of the garden, we cared even more for the things that grew in it, so that the space allotted to flowers, some thirty feet square, soon proved quite too small for the many plants that we wanted to have growing near us. At the top of the slope and to the west of the exedra a space was enclosed for a reserve garden, where we might grow flowers for cutting. To the eastward of the exedra a great bed of rather irregular form was dug, of which the part at the top of the hill was open to bright sunlight while the rest of it, near the cedar trees, offered such shade as lilies and many other things require. This bed is a genuine "mixed border." Its glory in April is the mat-like *Phlox subulata*—white and pink; in May the stately garden tulip, *Gesneriana*; in June a great patch of old-fashioned orange lilies, with sometimes as many as fifteen hundred flowers in a single

season; in July it is gay with *Lythrum*; in August the flame-like flowers of the butterfly-weed outshine all else; September crowns with yellow the stately clumps of *Helianthus rigidus*; in October innumerable asters are still in bloom; and in November many kinds of hardy chrysanthemums make the great bed the Mecca of our garden pilgrimages.

In spite of all that we had done, the garden had an air of incompleteness. The long path, the very foundation of the scheme, had failed to reach its goal. Then, too, we had no place for water-plants. So, after awhile, we set out to remedy both defects at a stroke. A hedge of tall *Arbor-vitæ* was put about the cedar tree, the more definitely to end the vista down the path. Not wishing to be at the expense of building a lily pond, a pair of disused casks, of heavy oak strongly bound with iron hoops, were bought at a brewery. When sawn in half, these casks made four admirable tubs, each eight feet across and three feet deep. Sunk in the ground, with the grass coming up to their rims, nothing could better suit the purpose. The overflow of the central fountain



THE END OF THE LONG PATH

"SEVENOAKS"



THE IRISES BELOW THE LILY POOLS

“SEVENOAKS”



AFTER THE ICE STORM



THE WRECK OF THE RED CEDAR

falls upon their surface in a gentle stream from the lips of a grape-crowned satyr, beside whose face a host of golden daffodils toss their heads in sprightly dance. In two of them the lotus thrives, putting up leaves two feet or more across. In due season come buds that remind us of the Nile, and soon open into stately flowers, pink and white, ending at last as seed vessels, reminiscent of Japan. The other tubs are brilliant with the splendid flowers of the *Nymphaea*,—white, scarlet, sulphur and blue,—from early summer till the coming of the first frosts. On the little islands between the tubs, the three *Osmundas* find congenial dampness, and even the marsh-marigold and the pitcher-plant do not refuse to blossom. Near by *Iris pseudacoris* throws up its yellow flowers in summer, and curls open its curious pods in autumn. The overflow from the tubs is arranged to feed the roots of a goodly bed of flags, where the sorts from Germany, Siberia and Japan give us a succession of great masses of blossom, the gayest in the whole garden.

The tiny stream, scarcely an eighth of an inch in thickness, that enters the garden by

falling from the wine-skin into the upper pool has yet another duty; for below the iris bed is one of splendid rose-mallows, brought from Jersey marshes, and massed with low hydrangeas. For all of these the stream furnishes a welcome moisture before it sinks at last into the ground.

The cautious are prone to ask whether it was wise to make what they consider so elaborate a garden on a piece of land that is not our own. The answer is not far to seek. The thought and labor spent in making it were good in themselves and their result has been, winter and summer, a never-ending pleasure. In the knowledge of garden design, gained in working out our problem, and in the knowledge of garden-craft that comes from planting and tending many kinds of growing things, we have already had more than an equivalent for our pains.

Our good friends, by sending of their best, have helped to stock the garden; but even better than the gifts of friends are the treasures brought home from many an all-day tramp in the woods or pleasant journey to the ever-fruitful Jersey. Bloodroot whitens

a corner in the spring; the rock-loving columbine, from over the Schuylkill, grows in the rich loam to twice its usual size; Dutchman's-breeches comes up year after year; *Helonias bullata*, that strange bog-loving herb, now banished from among the lilies, unfailingly puts up its purple flower-head in May, but its first cousin, Turkey-beard, feels scarcely at home even in the driest part of the garden, and threatens to die out. The rattlesnake-plantain and the showy orchis live on in a hidden corner, while *Veratrum viride* unfolds its plaited leaves unfailingly each spring. It is a keen pleasure to see the native wild flowers holding their own so well; to see each colony increase from year to year; and to be reminded each spring of last summer's pleasant holidays by the appearance of new sorts of wild flowers in the garden.

Gardens have their good fortune and their bad. Ours has just past through a time of trial. Not many days ago, a frozen rain, the like of which is not within the memory of

man, enshrouded it. The continuous down-pour, freezing as it fell, encased in thick ice everything it touched. The slenderest twigs were at least an inch in thickness. Boughs were enveloped in a weight of ice fifteen or twenty times their own. No trees, save the white oaks, proved equal to such a load. By noon, boughs began to fall; and with increasing frequency the crashing sounds were heard, till night-fall, when the rising wind worked such havoc and destruction as nature will fail to repair in many a year. The trees in our garden suffered less than many others, yet the black oaks lost their topmost branches—even great limbs eight inches thick. The old red cedar is but the wreck of its once shapely self. For two days, rain and ice; then on the third, the sun

rose clear and bright. It was a fairy scene that lasted but an hour, yet the enjoyment of its beauty was impossible for a mind heavy with sorrow for those

“Bare ruined choirs, where late the sweet birds sang.”

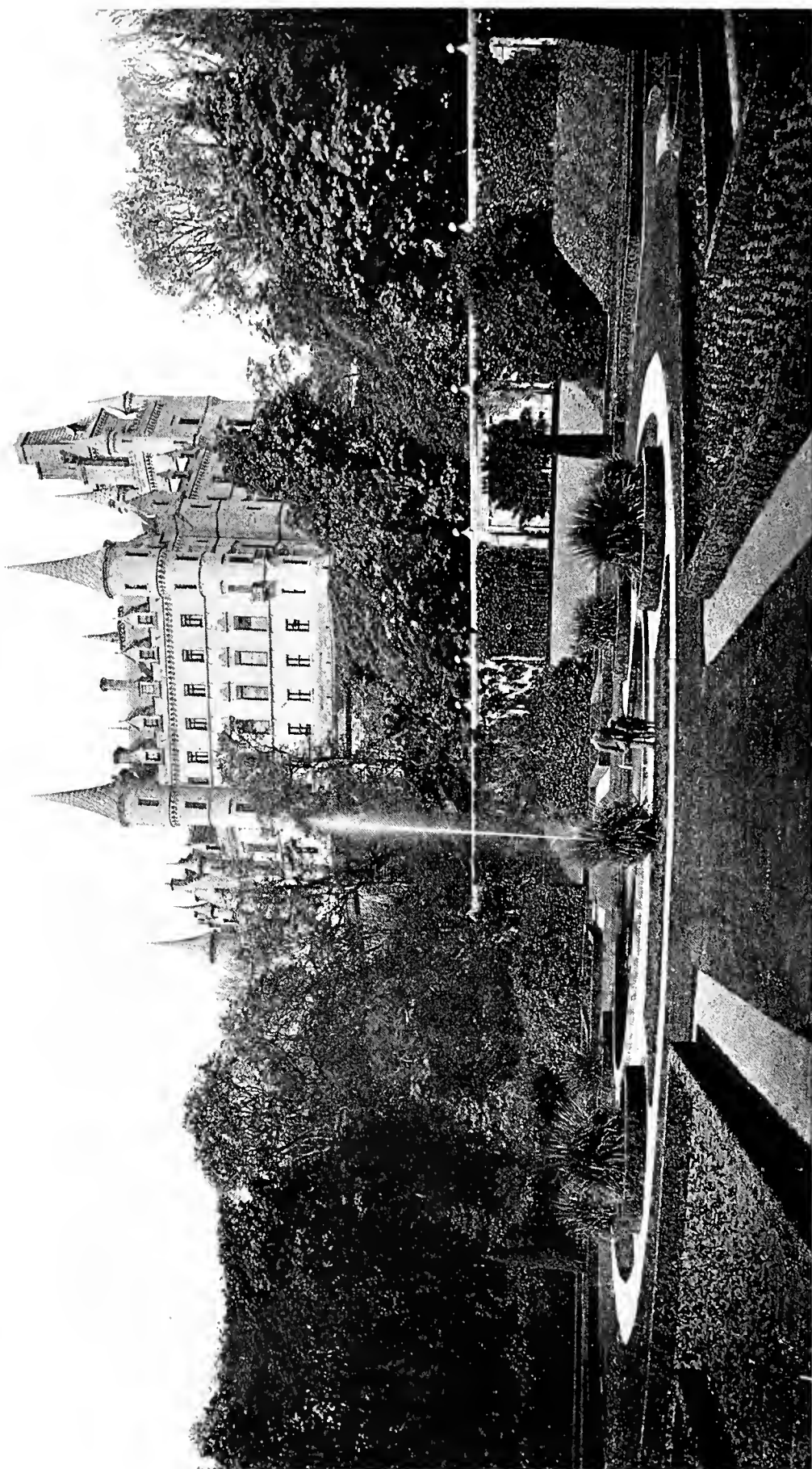
Frank Miles Day.



DRIFTED SNOW



A CONTEMPLATIVE SATYR



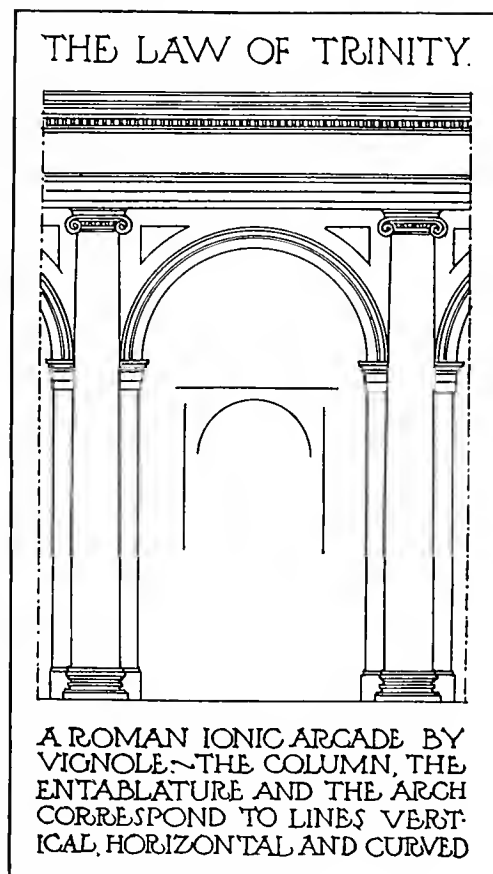
THE GARDENS OF DUNROBIN CASTLE

LAWS OF BEAUTY.¹

THE preceding essay was devoted to the consideration of polarity in nature and art,—that “inevitable duality” which, attaining its supreme expression in the sexes, masculine and feminine, is everywhere symbolized in countless pairs of opposites: in nature by fire and water; in music by a chord of suspense,—a partial dissonance, and a chord of fulfillment,—a perfect consonance; in architecture by the column and the lintel, and so on. This conception should now be modified by another, namely: that in every duality a third is latent; that each sex is in process of becoming the other; and that this alternation engenders and is accomplished by means of a third term, or neuter, which partakes of the nature of them both, just as a child may resemble both its parents. Earth is the child of fire and water. In music, besides the chord of longing and striving, and the chord of calmness and satisfaction, there is a third, or resolving chord in which the two are reconciled. In architecture, the arch, which is both weight and support, and is neither vertical or horizontal, may be considered the neuter of which the column and the entablature are respectively masculine and feminine. The application of the column and entablature to an arch and impost construction, familiar in Roman and Renaissance architecture, is a redundancy, and finds no justification in the reason, yet the sense of beauty is satisfied, because the arch forms a transition between the columns and the entablature and completes the trinity of vertical, horizontal and semicircular lines.

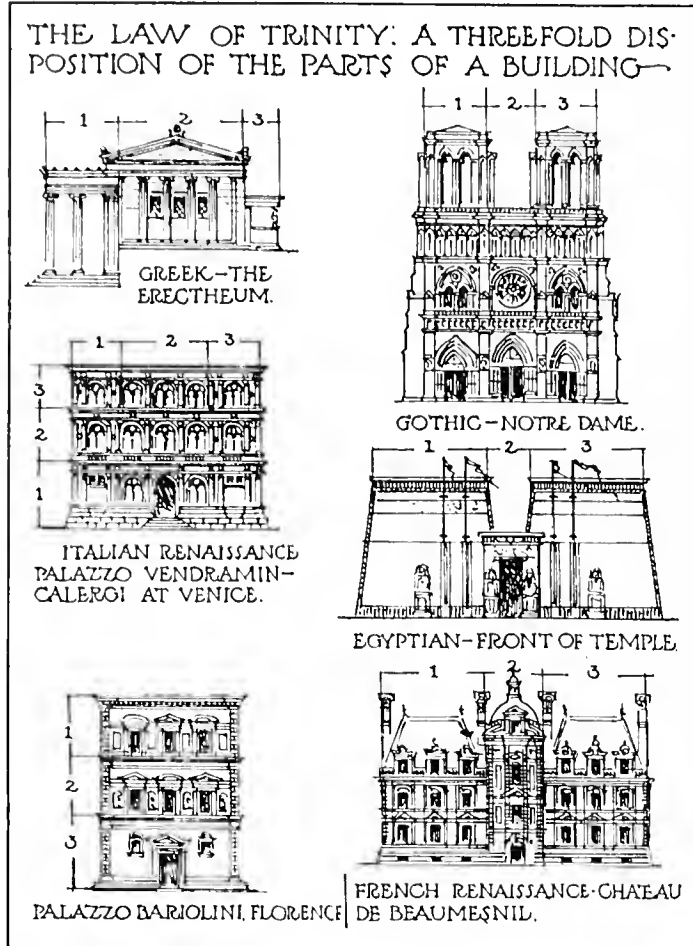
Three is preëminently the number of architecture, because it is the number of space, which is three dimensional; and architecture of all the arts is most concerned with the expression of spatial relations. The division of a composition into three related

parts is so universal that it would seem to be the result of an instinctive effort of the human mind. The twin pylons of an Egyptian temple, with the entrance between, for a third division, correspond to the two towers of a Gothic cathedral and the intervening screen wall of the nave. In the palaces of the Renaissance a threefold division, obtained vertically by means of quoins or pilasters, and horizontally by means of string-courses, was very common, as was also the division into a principal and two subordinate masses. The orders are divided threefold into pedestal or stylobate, column and entablature; and each is again divided, the first into plinth, die, and cornice; the second into base, shaft, and capital; and the third into architrave, frieze, and cornice.



In nature, a thing is echoed or repeated, in all its parts: “As is the small, so is the great.” Each leaf is a little tree,—the blossom is a modified leaf; every vertebrate is a system of spines. In the art of painting, this law is exemplified in the recurrence of certain lines and colors in different parts of the same picture, so arranged as to lead the eye up to some focal point, and thus enhance the effect of the whole. In music, it is illustrated in the return of the tonic to itself in the octave, and its partial return in the dominant; also, in a more extended sense, in the repetition of a major theme in the minor, or in the treble, and again in the bass, with modifications also of time and key. Such recurrences, such inner consonances, are common in architecture also. The channeled triglyphs of a Grecian Doric frieze echo the fluted columns below. The balustrade which crowns a colonnade is a repetition, in some sort, of the colonnade itself. The modillions of a Corinthian cornice are altered and elaborated dentils. Each

¹ The fourth of Mr. Bragdon's series of articles entitled:—“The Beautiful Necessity: being Essays upon Architectural Esthetics,” begun in the January number of HOUSE AND GARDEN.



pinnacle of a Gothic cathedral is a little tower with its spire.

Ruskin says, in *Stones of Venice*, "All good Gothic is nothing more than the development, in various ways, and on every conceivable scale, of the group formed by the pointed arch for the bearing-line below, and the gable for the protecting line above: and from the huge, gray, shaly slope of the cathedral roof, with its elastic pointed vaults beneath, to the slight crown-like points that enrich the smallest niche of its doorway, one law and one expression will be found in all. The modes of support and of decoration are infinitely various, but the real character of the building, in all good Gothic, depends on the single lines of the gable over the pointed arch endlessly rearranged

and repeated." In classic architecture, instead of pointed arch and gable, it is the column and entablature which constantly recurs. Every vertical member should have something to correspond with base, shaft, and capital, and every horizontal something to correspond with architrave, frieze, and cornice.

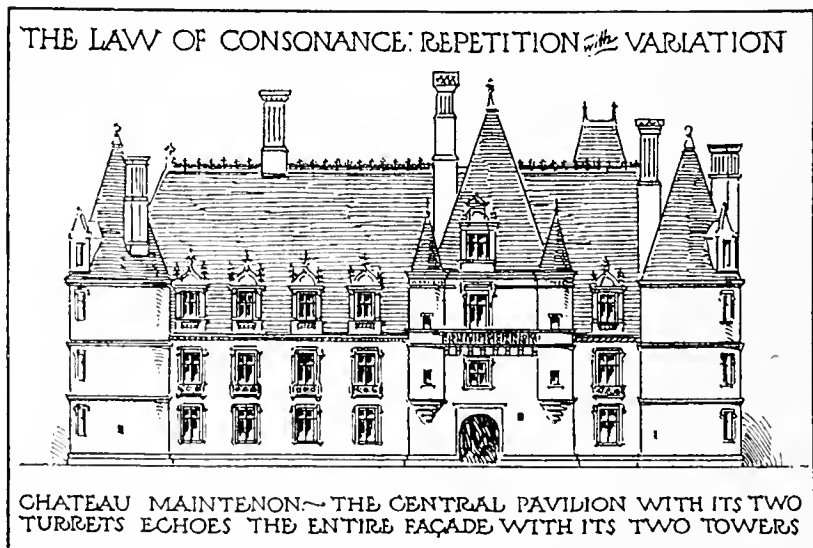
This law of consonance is more obscurely present in architecture in the form of recurring numbers,—identical geometrical foundation figures, parallel diagonals, and the like. It has to do also with the style and scale of a building,—the adherence to substantially one method of construction and one manner of ornament throughout, just as in music the key, or chosen series of notes, may not be departed from except through proper modulations.

Another principle of natural beauty which finds frequent illustration in architecture, particularly in that of the Byzantine and Gothic styles, is that of diversity in monotony: a perceptible and piquant difference between the individual units belonging to a single type or species. No two persons look exactly alike, though they have similar members and features, no leaves from the same tree are quite identical.

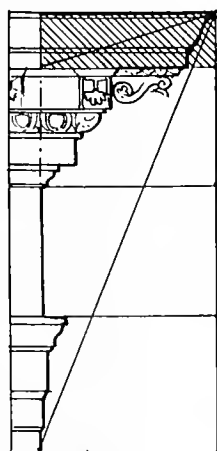
The metopes of the Parthenon frieze, seen at a distance, must have appeared very like one another, yet each is a separate work of art. So also are the capitals to the columns of the beautiful sea arcade of the Venetian Ducal palace: alike in contour, they differ widely in detail, and unfold a Bible story. In Gothic cathedrals and monastery cloisters, a teeming variety of invention is hidden beneath apparent uniformity. The gargoyles of Notre Dame

make similar silhouettes against the sky; but seen near at hand, what a menagerie of monsters!

The medieval builders of Italian churches varied the sizes of the arches in the same arcade; and that this was an effect of art, and not

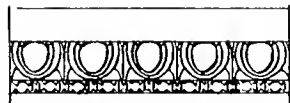
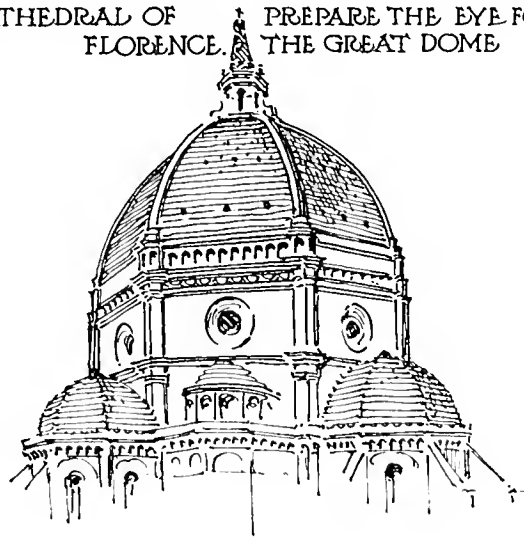


THE LAW OF CONSONANCE: REPETITION WITH VARIATION

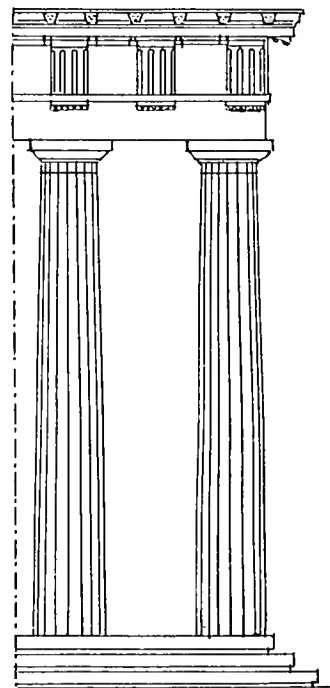


CORINTHIAN CAPITAL AND ENTABLATURE, SHOWING CORRESPONDENCE BETWEEN THEIR VARIOUS PARTS.

THE DOME OF THE CATHEDRAL OF FLORENCE. THE SMALL DOMES PREPARE THE EYE FOR THE GREAT DOME



THE BEAD AND REEL ECHO THE EGG AND TONGUE

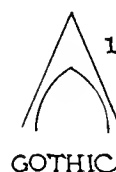


THE CHANNELED TRIGLYPHS ABOVE ECHO THE COLUMNS BELOW.

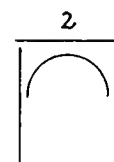
due to accident or carelessness, Ruskin long ago discovered, and the more recent Brooklyn Institute surveys under Professor Goodyear have amply confirmed his view. Although by this means the builders of that day produced effects of deceptive perspective, of subtle concord and contrast, their hatred of monotony and meaningless repetition may very well have led them to such diversity for its own sake. It certainly imparts a sense of vitality to a succession of arches, which is lacking in a rigidly equal and regular division.

There is in nature a universal tendency towards refinement and compactness of form in space, or contrarywise towards increment and diffusion; and this in time manifests itself as acceleration or retardation. It is governed, in either case, by a known mathematical law, like the law of falling bodies. Its operation may be traced in the widening circles which appear when still water is disturbed, in the diminishing spirals of a shell, in the branching of a tree and the veinings of a leaf, no less

than in the decreasing sizes of the pipes of an organ, or in the spacing of the frets of a guitar. There appears to be no escape from this rhythmic diminution. It is in the eye itself, for any series of mathematically equal units, such, for example, as the columns and intercolumniations of a colon-



GOTHIC

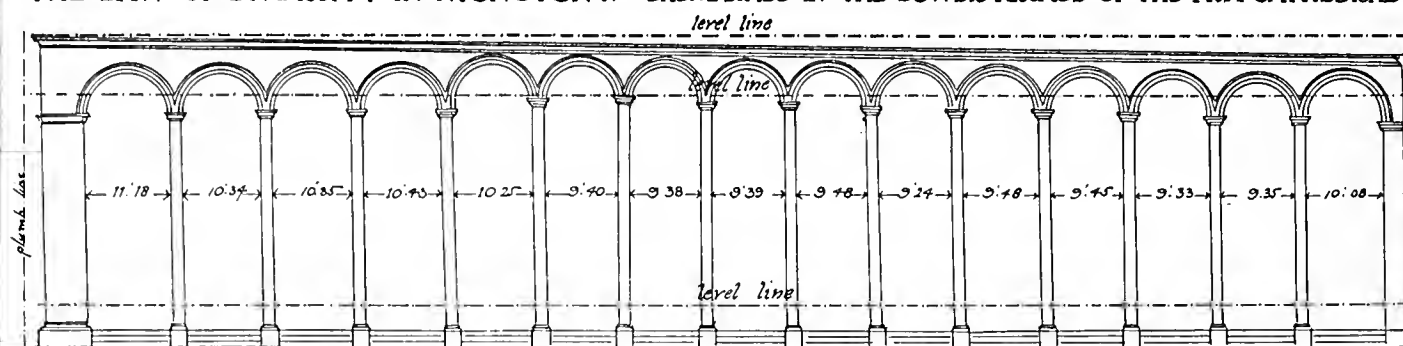


CLASSIC

THE ELEMENTS OF GOTHIC (1) AND OF CLASSIC (2) ARCHITECTURE

nade, become, when seen in perspective, rhythmically unequal. The entasis of a column is determined by this law; the spiral of an Ionic volute, and the annulets of the Parthenon caps variously illustrate it. In recognition of this principle a building is often made to grow lighter and finer from

THE LAW OF DIVERSITY IN MONOTONY. EXEMPLIFIED IN THE LOWER ARCADE OF THE PISA CATHEDRAL



FROM PROFESSOR GOODYEAR'S SURVEY OF THE SOUTH WALL OF THE PISA CATHEDRAL, SHOWING VARIATION IN HEIGHTS AND WIDTHS OF THE ARCHES OF THE ARCADE; AND THE DIP OF THE HORIZONTAL STRING COURSE IMMEDIATELY ABOVE—

the ground upwards: an end attained by various devices; in the Riccardi palace, by diminishing the rustication of the ashlar in successive stories; in the Farnese, by reducing the sizes of the angle quoins; in an Egyptian pylon, by simply battering the wall; and in a Gothic cathedral, by a kind of segregation not unlike that to which a tree is subjected,—the strong, plain base, corresponding to the trunk, and the multitude of delicate pinnacles and crockets to the outermost twigs and branches.

Such are a few of the more obvious principles of natural beauty. First is the law of unity; then, since the unit is perceived to be twofold, the law of polarity: but this duality is always in a state of flux, the two combining to produce a third; hence the law of trinity, and of multiplicity in unity. From this follows naturally the law of

consonance,—of repetition with variation, and its opposite and complement, diversity in monotony, and—since all is waxing or waning—the law of rhythmic change.

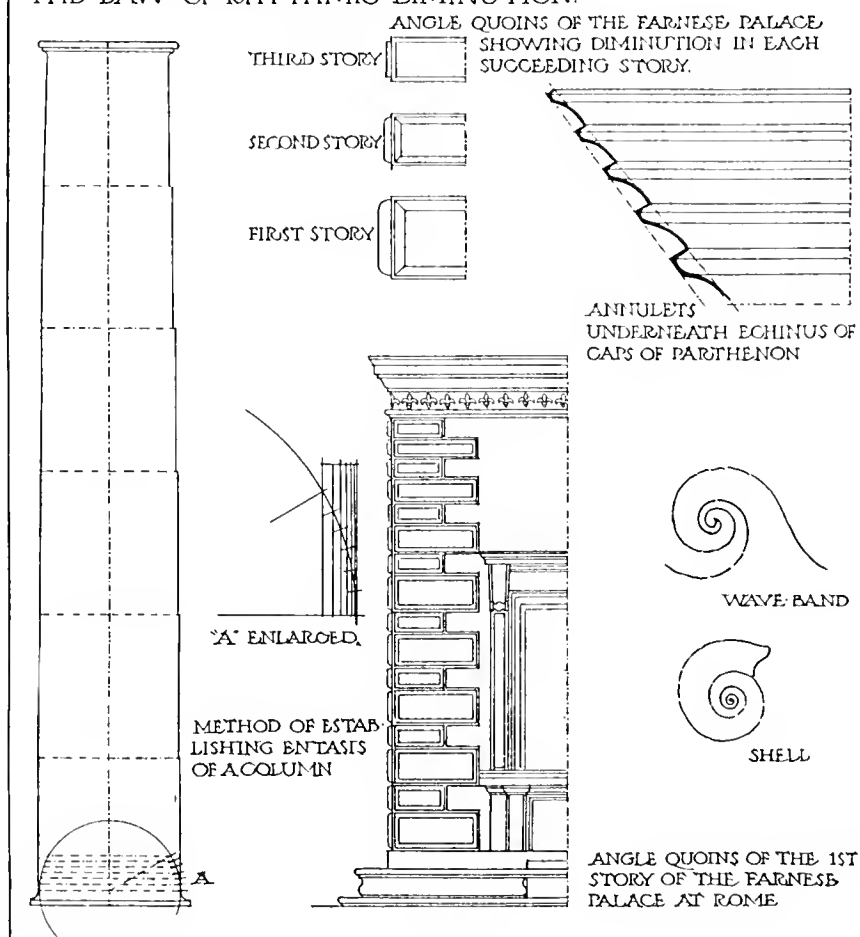
It would be absurd to contend that the object of a work of architecture is to obey

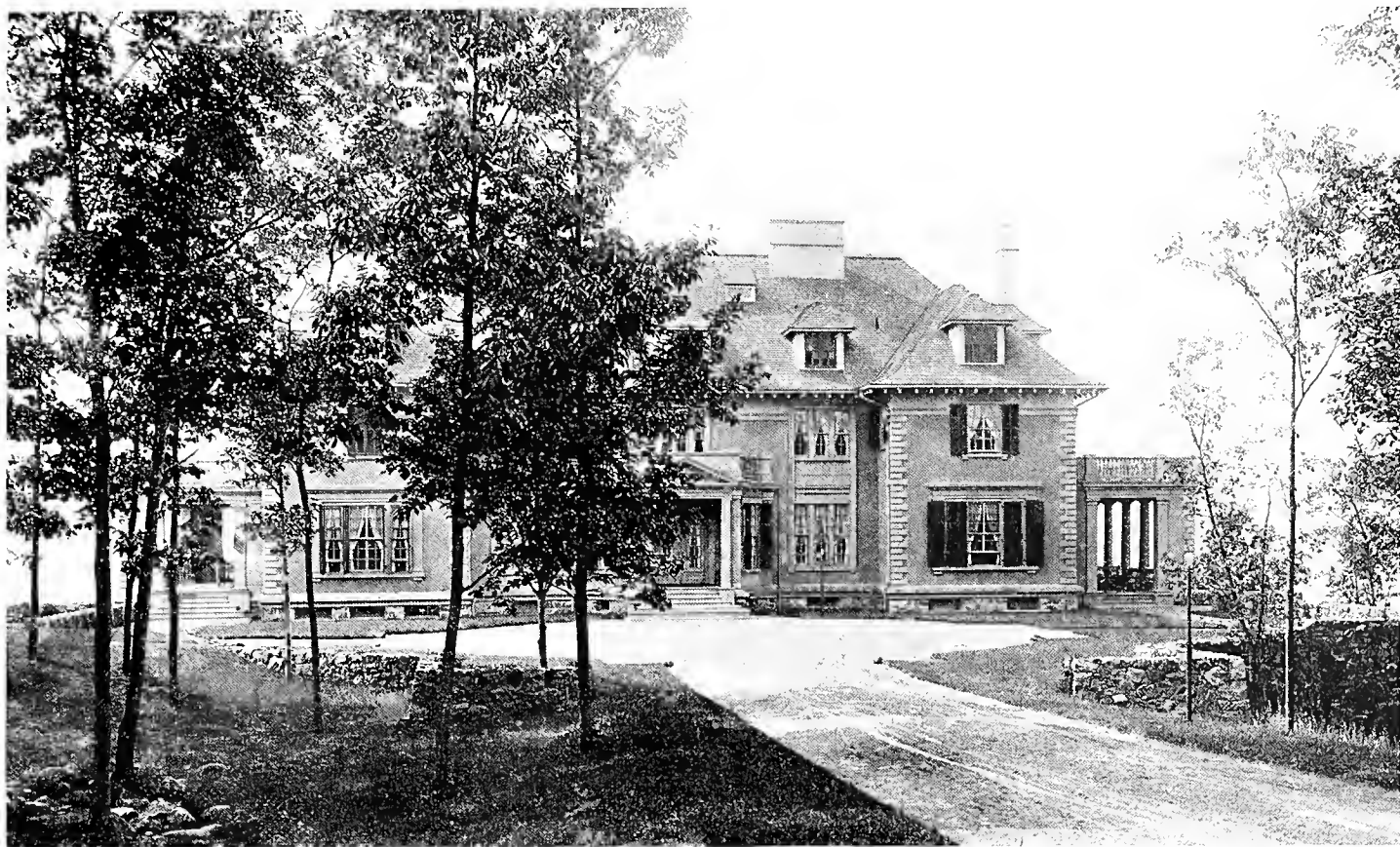
and illustrate these laws. A work of architecture is intended to fulfill certain definite practical conditions in an admirable way, and in fulfilling, express these conditions. The architect who is also an artist, however, will do this and something beyond. Working unconsciously and naturally, his work will obey and illustrate natural laws; and to the extent that it does so, it will be a work

of art, for art is the method of nature carried into those higher regions of thought and feeling which man alone inhabits.

Claude Bragdon.

THE LAW OF RHYTHMIC DIMINUTION.

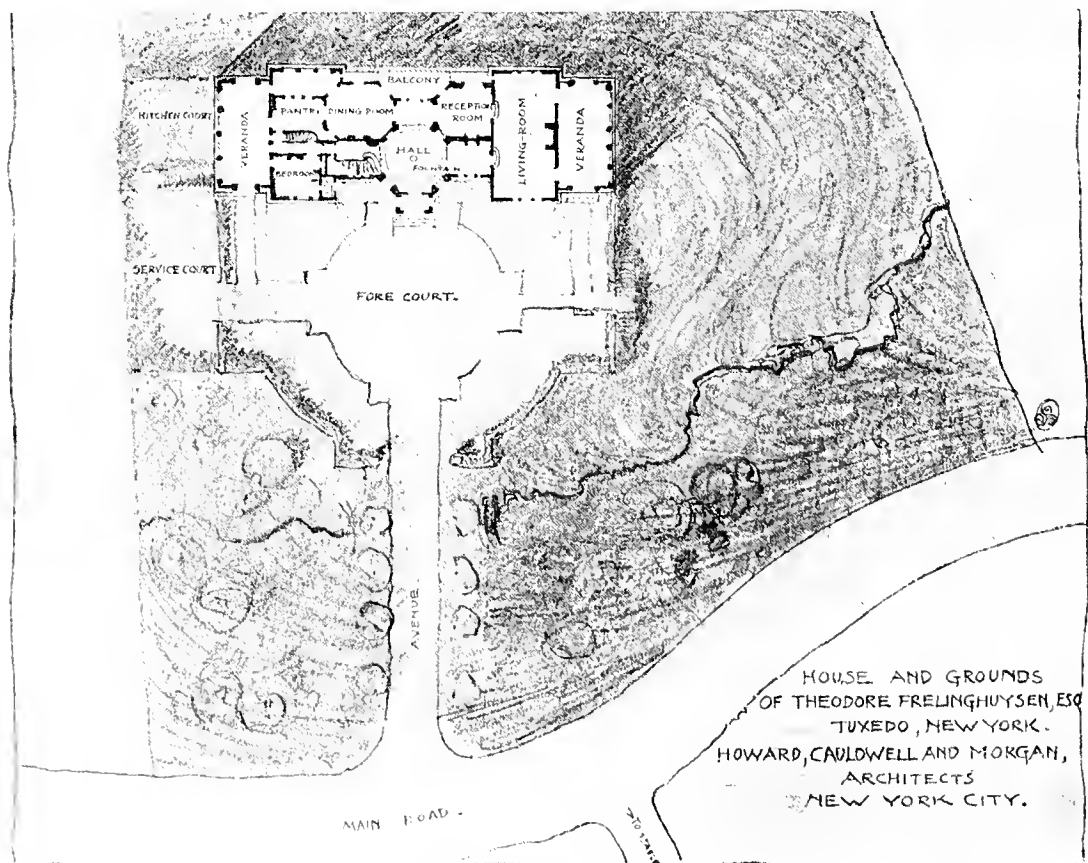




A HOUSE AT TUXEDO PARK

DESIGNED BY HOWARD, CAULDWELL & MORGAN, ARCHITECTS

A House at Tuxedo Park



A HOUSE AT TUXEDO PARK
DESIGNED BY HOWARD, CAULDWELL & MORGAN, ARCHITECTS



A HOUSE AT TUXEDO PARK
DESIGNED BY HOWARD, CAULDWELL & MORGAN, ARCHITECTS



INTERIORS OF A HOUSE AT TUXEDO PARK
DESIGNED BY HOWARD, CAULDWELL & MORGAN, ARCHITECTS

THE ORNAMENTAL MOVEMENT OF WATER IN CITY STREETS.—I.

THE municipal renaissance begun in many American cities within a few years, and now spreading rapidly through the country, may be compared to the process whose results are visible at intervals in the Vienna Royal Opera and other European theaters of the first rank. One after another, the older operas in the repertory are taken up and re-studied. Music, text and action that every singer concerned knows too well, if that be possible, are examined anew, and an effort is made to eliminate encumbering tradition and habit, and to realize afresh the significance and function of every factor. Orchestra and chorus go over the score as if for the first time, and the

or, better yet, the streets themselves, noting undesirable effects to be eliminated, and studying how to preserve or enhance public utilities and still avoid imposing upon any thoroughfare or square an aspect not in keeping with its inherent character. Often enough, such a committee will find that cost of ground and the demands of commerce or traffic conspire to prevent radical alterations like the cutting of a new street or the widening of an existing avenue. The committee therefore limits itself to planning minor embellishments instead of large schemes of reconstruction,—for not every American city can be a Twentieth Century Washington.

Far more likely than most other architectural or sculptural decorations, to be satisfactory under such circumstances, are street



THE PIAZZA OF ST. PETER

ROME

principal singers read their parts with the idea of embellishing them, and bringing more fully into relation with the whole drama episodes not previously utilized, so as to present a vital and complete interpretation. Even costumes and scenery are renewed.

Municipal art societies and other civic organizations are now doing this sort of work for their several cities. Committees of architects and laymen are going over street plans,

fountains, devised for the ornamental display of moving water. Should it be determined to reclaim some neglected fragment of public property in the city's busy quarter, or to erect a modest monument to a local or national hero, what more fitting than a design in which the beneficent influence of flowing water is felt? Even when the appalling lack of general knowledge in our country of what is good and what vicious, in sculpture, is responsible for

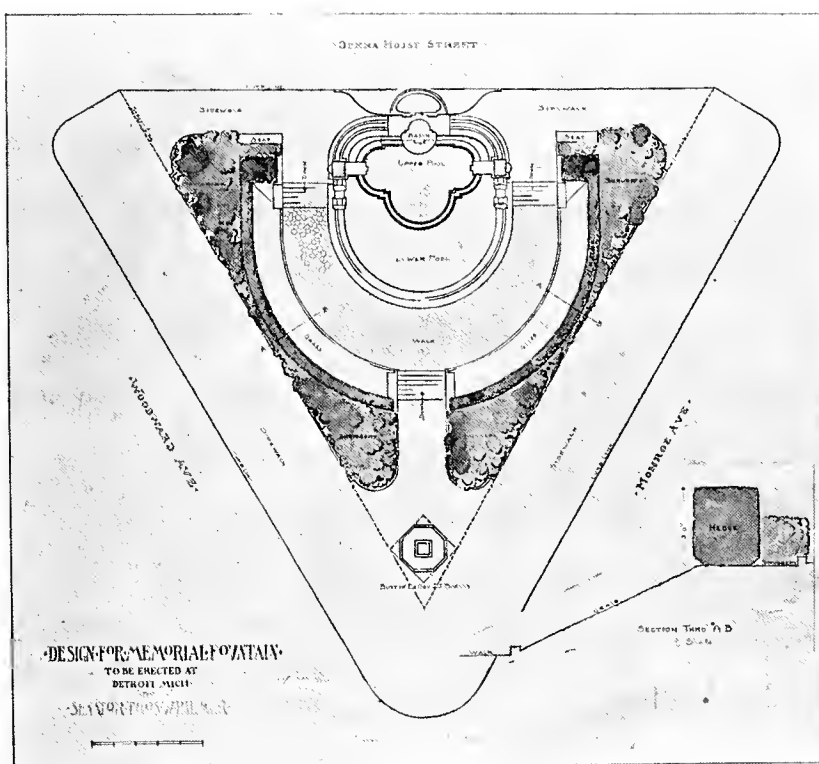


THE PALMER MEMORIAL FOUNTAIN

DETROIT

the admission of commonplace work, the presence of living water will almost invariably forward the general effect of a monument.

As music, judiciously interpolated, raises the vitality and appeal of a spoken drama, so does moving water, bearing proper relation to the static forms of adjacent monuments or buildings, enhance and help to communicate their characteristic qualities. This factor of water in motion, embodying and suggesting life, has been relied upon, in many a famous monu-



THE PLAN OF THE PALMER MEMORIAL FOUNTAIN

ment, to enforce the impact of an art work upon the senses, to attract, charm, fascinate. Whole cities were known, even before Roman times, for their ornamental use of water. Samarcand, "the ineffable," was one of them, and, as Vambéry records, it was the queen city of all the basin of the Oxus, reaching, under Tamerlane, the

height of its splendor. "The Mohammedans had a thousand poetic expressions in praise of its wealth, its abundance of water, its innumerable canals, fed from mountain

torrents and running in all directions through the plain."

American cities, noisy, impatient, utilitarian to the last degree, are singularly in need of the refreshing influence upon mind and body produced by flowing water. Let it be but so much as a slender jet, breaking into myriad drops as it seeks the sunlight, and it will appreciably affect its surroundings. As water is the greatest of mechanical solvents, so it acts here as a sort of flux, by whose aid the slow furnace of the mind reduces the more quickly to definite sensation the story implied in architecture and environment.

Three uses are distinguishable, in American cities, for moving water in streets: first, the purely decorative or monumental; second, in

latter might save five or six per cent. of their wages, otherwise sure to be spent at the nearest public-house. It was stated that in Liverpool, in one day of 13 hours, 8 minutes, 24,702 persons drank at 13 street fountains, an average of one every 25 seconds. Granting, however, that in this year of grace 1902, no



THE TYLER-DAVIDSON FOUNTAIN,
CINCINNATI

drinking fountains; third, in irrigating canals, limited to a few Western towns, such as Colorado Springs. It is a combination of the first and second classes, of the monumental structure with the fountain available for slaking thirst of man and beast, that should commend itself to the enlightened municipal art committee.

Every one, nowadays, admits the value and necessity, especially in warm weather, of a supply of free drinking water in public streets, though even this attitude is comparatively recent. It was as lately as 1859 that London was practically without such facilities, and that strong economic and social arguments had to be advanced before the city government would act. Temperance advocates showed how, by slaking the thirst of workmen, the



THE ROBERT LOUIS STEVENSON MEMORIAL,
SAN FRANCISCO

great persuasion is needed to convince city councils of the wisdom of spending money on drinking fountains, this sentiment should be utilized by municipal art committees to obtain, for such street fountains as deserve it, a treatment distinctly decorative. Another argument for architectural or sculptural setting is the practical necessity, even in a drinking tap, of a continuous, if small flow. Although this may seem a useless expenditure of water, no system of faucets quite serves the purpose in view. If the water must run all the time, it might as well be employed ornamentally.

Chiefly available for street fountains in American cities are the occasional circular or triangular spaces formed by the junction of several thoroughfares, and the much more



IN WASHINGTON PLACE

BALTIMORE

frequent sites against dead walls or at corners of buildings. American conditions are more favorable to the development of wall fountains than of those in open spaces. Our cities generally exhibit in their plans a discouraging reluctance toward curved lines or open paved plazas, surrounded by dignified buildings and not wholly given to vehicular traffic. There is nothing here to correspond with the Piazza before St. Peter's, the Place de la Concorde, Trafalgar Square, or the great Platz in Berlin. In these spaces, troops are reviewed and mass-meetings held; they are intended to contain crowds on stated occasions, and they are decorated with due heed to these purposes, by pairs or series of fountains and other monuments.

Here at home, traffic is apt to press heavily upon street space. In New York, for example, Madison Square might best be beautified, perhaps, by truncating the trapezoidal block

formed by Broadway, Fifth Avenue, Twenty-fifth and Twenty-sixth Streets, as suggested by Russell Sturgis, and placing a wall fountain, such as that of the Place St. Michel, Paris, at its southern end. The cost was roughly estimated at \$100,000. Broadway, in its diagonal course up Manhattan Island, offers several other opportunities for street fountains, especially at Longacre Square and at the Circle (Fifty-ninth Street), where the potency of the Columbus Monument might be heightened by shelving off the lower part of the pedestal, introducing spouts of water from it, and surrounding the whole with a basin. In spite of the adjacent green of Central Park, the Circle is now arid enough in effect, with its six street-railway tracks, to warrant this inexpensive improvement.

The tendency to-day is all away from placing fountains or other monumental structures



THE ACQUA PAOLA FOUNTAIN

ROME

in the middle of a street, unless there be ample space to insure free passage of traffic. There was sharp criticism, not many months ago, of the artistic immorality of a project for a monumental fountain in the town of Nordlingen, Germany, at the crossing of four streets, because two of these thoroughfares already had small decorative erections of their own, occupying strategic positions and likely to join in blockading vehicular passengers. To warn committees against such blunders as this, however, would be merely to utter what old Sir Henry Wotton, in his "Elements of Architecture," written nearly three centuries ago, might have termed one of the "vulgar cautions," being only another form of common sense.

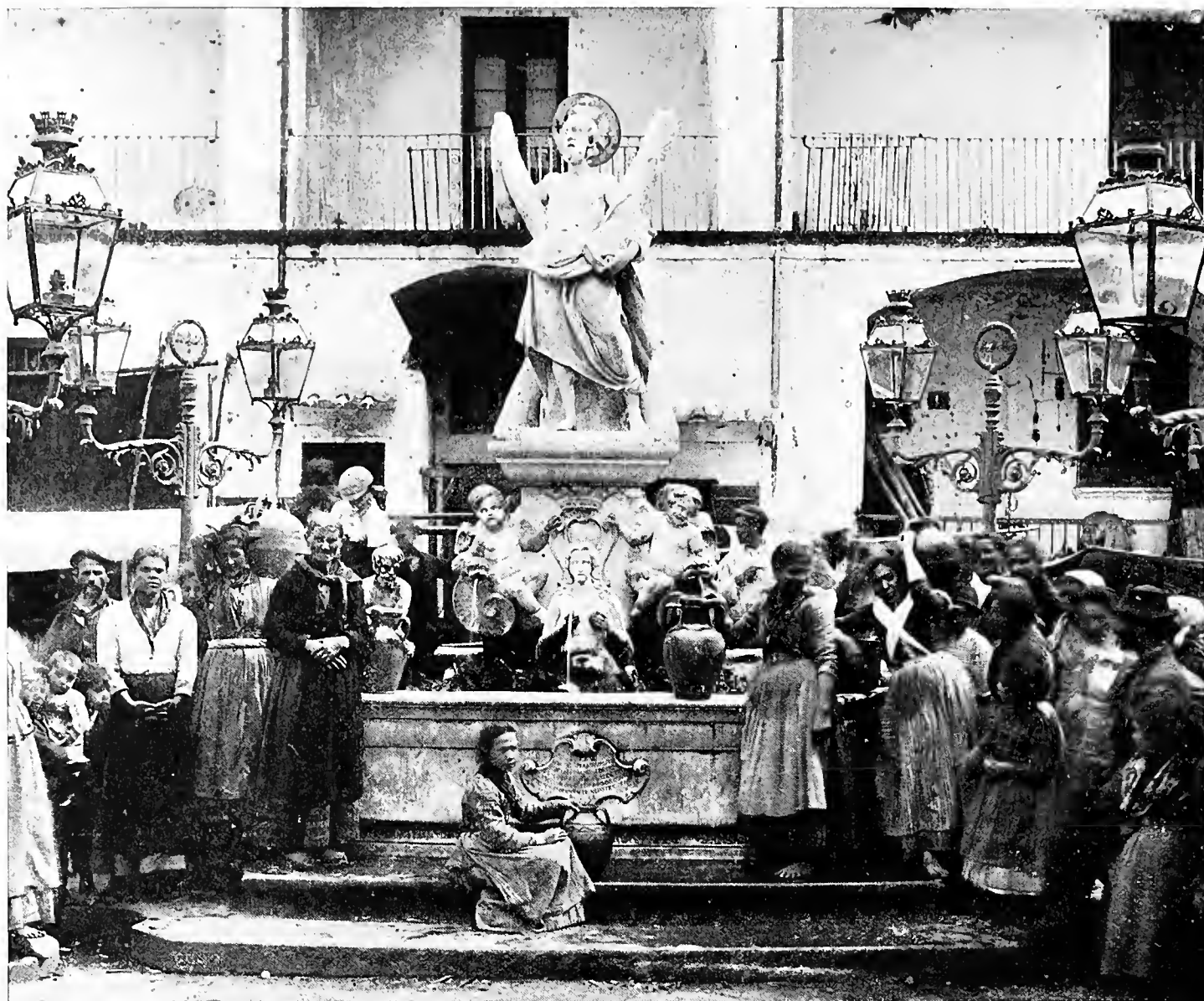
When space for an open circle or triangle is available, formal treatment, with a fountain, is often strikingly successful. Such a method of ornamenting and vivifying a plot in the heart of a city may be studied in the accompanying photograph and plan of a memorial

fountain recently erected in Detroit from designs of Carrère and Hastings, by Senator Thomas W. Palmer. It divides the base line of a triangular space, at whose apex is a statue. On the street side, opposite the Opera House, is a drinking place for horses. The fountain itself faces the apex of the triangle, the water from this miniature *château d'eau* flowing into three successive basins. The two balustrades extending as quadrants on both sides of the central member help to focus interest upon the semicircular niche and its gushing water. The three single jets, issuing from the surface of the lower pool, prevent any feeling of thinness in the design. The recessed portal of the Opera House forms an excellent backing for the white stone structure, while the simplicity and accessibility of the fountain are both in its favor. The sinking of the pool below the street level enables the passer-by to see it more readily, and makes possible the advantageous effect of sloping grass plots, bringing



THE TREVI FOUNTAIN

ROME



THE FOUNTAIN OF ST. ANDREW

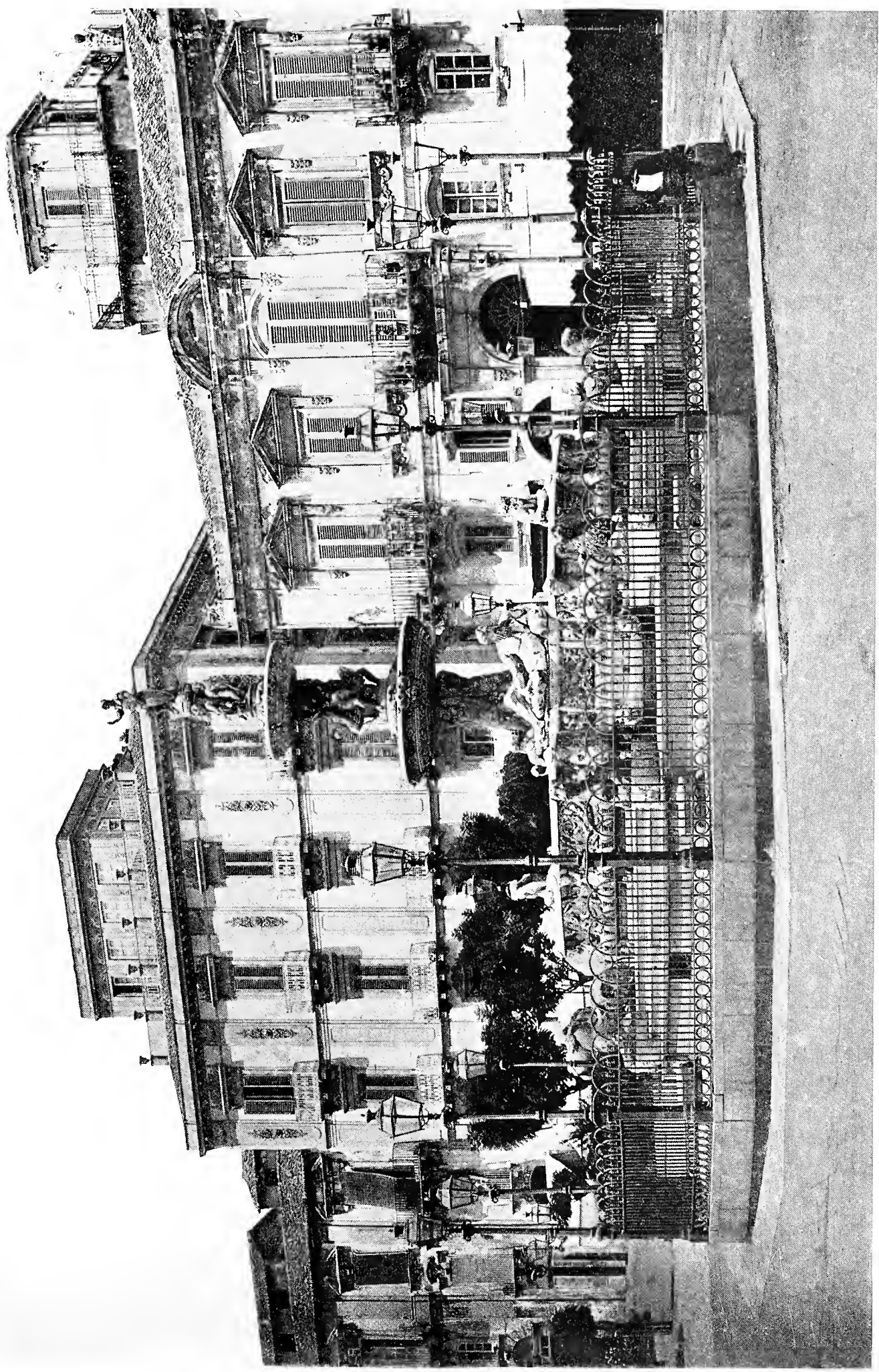
AMALFI

the green more immediately into range. A thick hedge, and, outside this, a growth of shrubbery, are also provided.

Occasionally, it is possible to heighten, by the introduction of moving water, the effectiveness of a monumental scheme already dignified. Of this, an example is found in the setting of the Washington Monument, at Baltimore, near whose base little fountains help to suggest elasticity. One of them, with park-like surroundings, is shown here. The volume of water is inconsiderable, but, in a quiet way, the fountain is not without influence.

It is none too often, however, that successful treatment of ornamental fountains is to be seen in American streets. For a characteristic example of bad placing, note the Tyler-Davidson structure in Cincinnati.

Seen, as in the illustration, from Fountain Square, its vertical axis nearly coincides with the angle of the tall building on the opposite corner, while one arm of the upper figure and part of the lower group is silhouetted against the sky. No design would retain its dignity under such circumstances, and in the present case, the fountain is further dwarfed by the tall trees that close in upon it. In extenuation may be urged the fact that this fountain was erected as long ago as 1871, from designs of a German, August von Kreling; even the casting was done at the Royal Bronze Foundry, Munich. Those were the dark days of American municipal art. American cities possess as yet few street fountains of any importance, so that municipal art organizations have ample field for their efforts.



THE FOUNTAIN IN FRONT OF THE CATHEDRAL, MESSINA



FOUNTAIN IN THE PIAZZA

RAVELLO

Readers of *HOUSE AND GARDEN* are already familiar with the proposed improvements in the City of Washington, suggested by the Park Commission. These include several new fountains, the most important being for the sunken garden at the foot of the Washington Monument and a cascade effect for the slope at the foot of the



AT SAN LUIS POTOSI, MEXICO

Capitol. The Commission's report emphasizes the need of many fountains to help make bearable the heat of summer, when official business "is conducted at an undue expenditure of physical force." It continues:

"If all the fountains of Washington, instead of being left lifeless and inert as they are during most of the time, should

be set playing at their full capacity, they would not use the amount of water that bursts from the world-famous fountain of Trevi, or splashes on the stones of the Piazza of St. Peter's. The original plans of Washington show the high appreciation L'Enfant had for all forms of water decoration; and when the heats of a

having fountains," he suggests, "is obtaining water for them. All large towns are perennially short of water, and pumping costs. In Rome, the water comes by gravity; therefore, as the cost is slight, the fountains play constantly. In Paris they play seldom, and dead fountains are dreary. In Washington, we can have a Roman



AN OLD FOUNTAIN

AT TAORMINA

Washington summer are taken into consideration, further argument is unnecessary to prove that the first and greatest step to be taken in the matter of beautifying the District of Columbia is such an increase in the water supply as will make possible the copious and even lavish use of water in fountains."

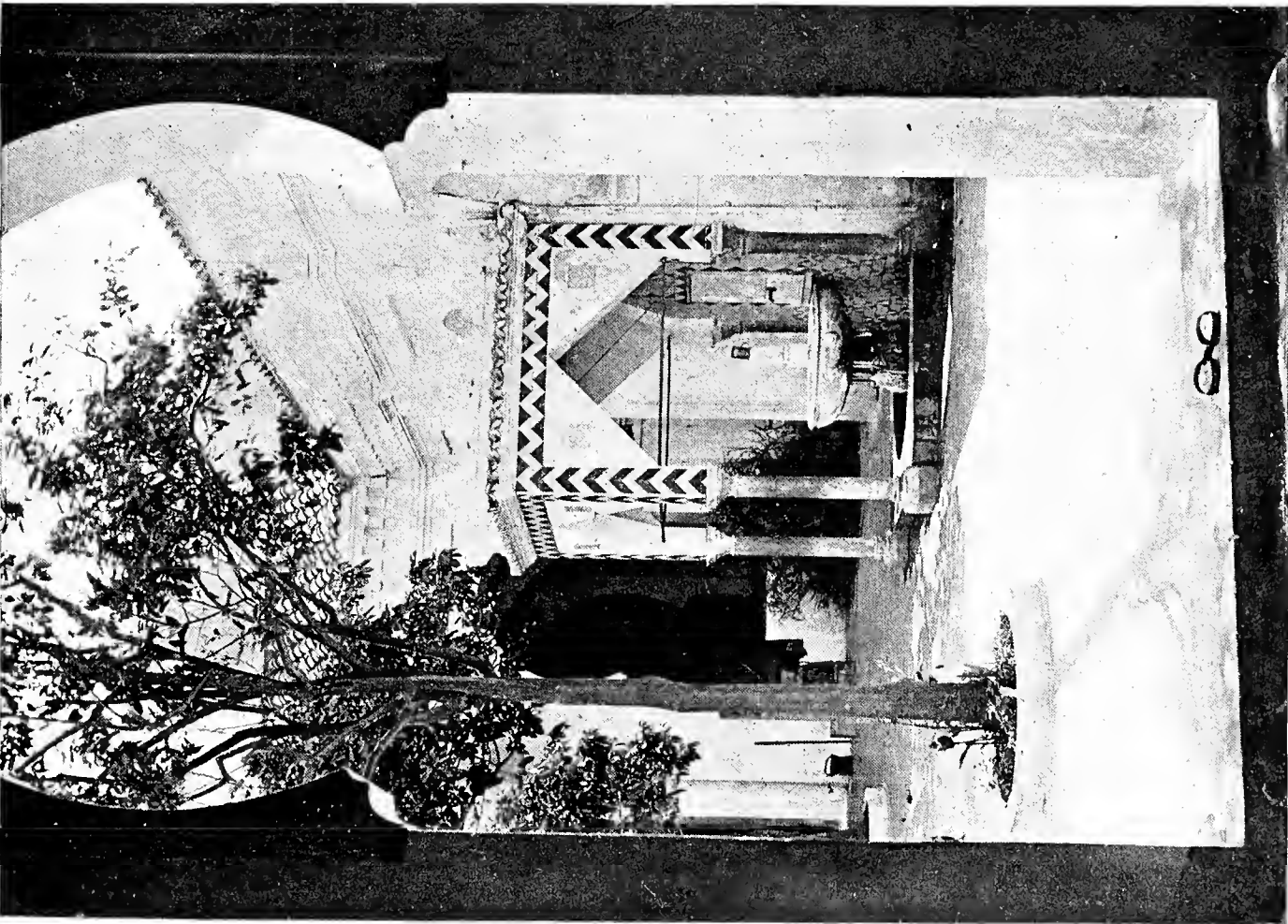
This may be supplemented by an unofficial remark of Mr. D. H. Burnham, of the Park Commission. "The difficulty of

condition. The Potomac above Great Falls is 150 feet above the town of old Washington; and at this point, the water supply is equal to all the old Rome sources, I should think."

How copious these Roman supplies were, all the world knows, but the fountains in St. Peter's Piazza and the Acqua Paola are shown here by way of reminder. The two represent distinct types; the first that suited to an open space, to be seen from all sides:



FOUNTAIN OF THE MOSQUE, ORAN



WALL FOUNTAIN IN ALGIERS



A ROADSIDE FOUNTAIN

IN ALGERIA

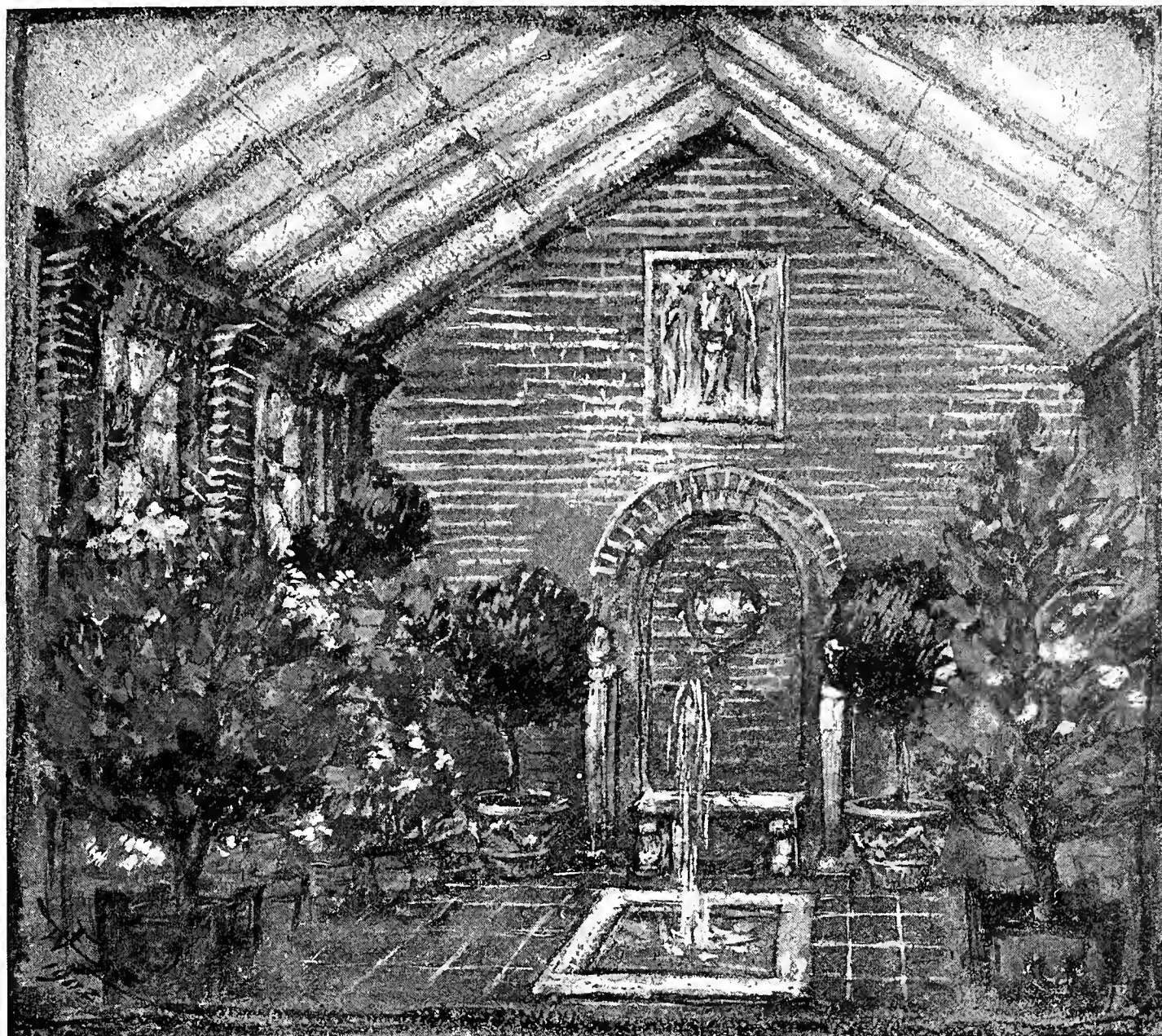
the second, a wall fountain. The jets in St. Peter's Piazza reach a height of 45 feet. The Acqua Paola, on the slope of the Janiculum, was the ancient Acqua Trajana, supplied by the Lago di Bracciano, thirty miles away. Rome's most elaborate fountain is, of course, that of Trevi, erected against the south side of the Palazzo Poli, at the apex of a triangle jutting into an open square. Completed in 1762, it uses the main stream of the old Acqua Virgo, which, with a total daily flow of 13,000,000 cubic feet of water, supplies also the fountains in the Piazza di Spagna, the Piazza Navona and the Piazza Farnese. A good recent example is in the Piazza delle Terme, with Santa Maria degli Angeli in the background. It stands at the head of the Via Nazionale, near the Grand Hotel and the Teatro Costanzi. Just off the axis of a cross street, out of the way of traffic, this fountain com-

mands both thoroughfares. It sends up a copious and lofty jet, said to be especially effective at night, when the Piazza is lighted by electricity.

While several of the fountains here illustrated bear no direct relation to American municipal conditions, all suggest the refreshing influence of water in the highways and byways of cities, which is the point aimed at in the present paper. Once let the municipal art movement in some important city take up seriously the project of street fountains, and it is safe to predict an increasing following. The elasticity and adaptability to specified conditions, of these decorative objects; the feasibility of using wall spaces as well as open plots, the advantage of combining utility with beauty—these have been dwelt upon as practical matters. In another paper, considerations of individual design will be discussed.

Samuel Swift.

To be continued

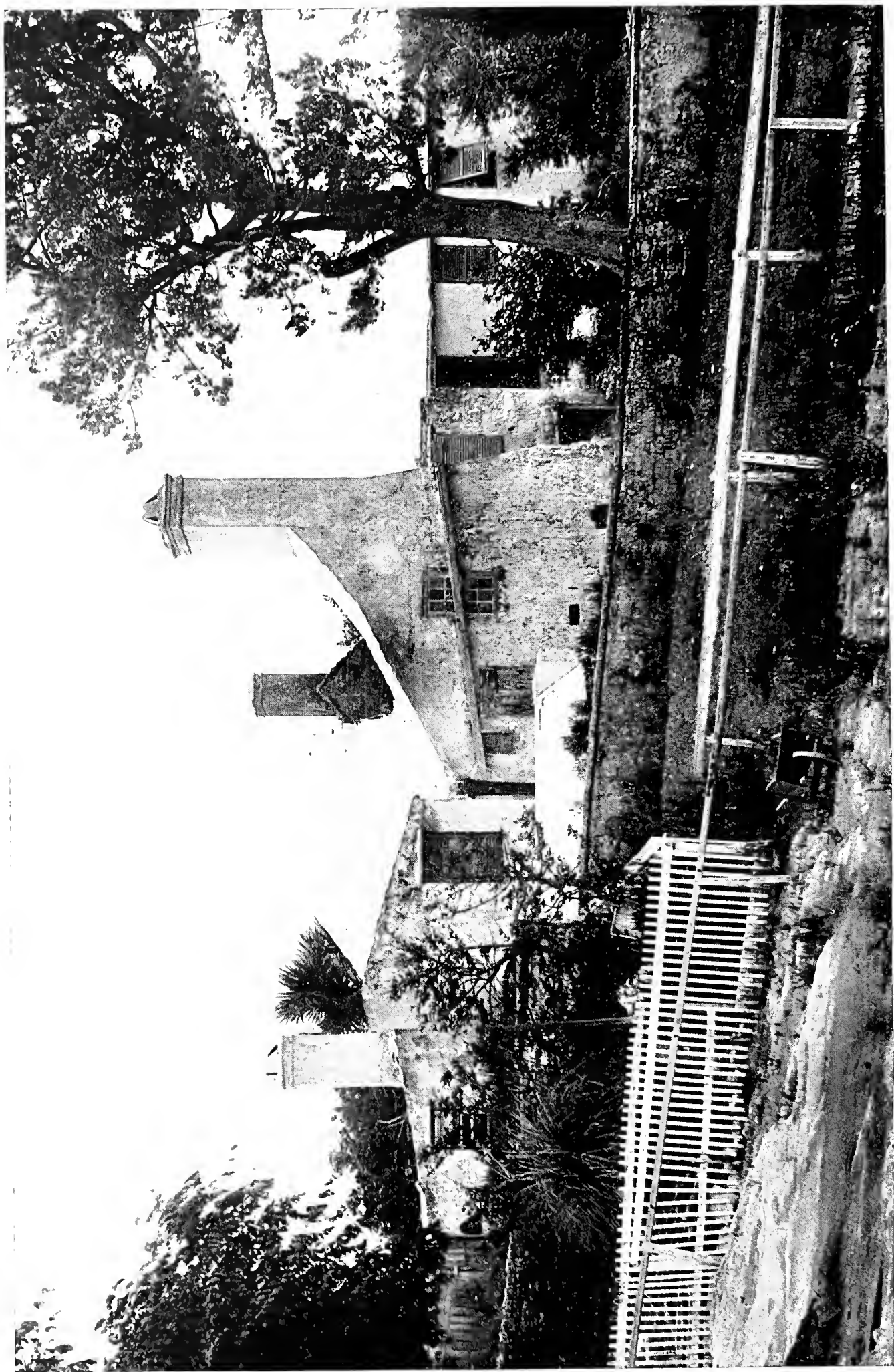


A DESIGN FOR A CONSERVATORY.

BY WILSON EYRE.

THIS conservatory is intended to occupy the vacant space existing between the end of a Philadelphia dwelling and a blank party-wall forming the rear boundary to the property. Instead of the far from ornamental appearance which the structure of green-houses usually exhibit, the walls are here to possess an interest in themselves. They are to be made of the same brick of which the house itself is built, and the introduction of decorative panels and sculptured ornaments cannot but heighten the effect of the plants in their different conditions of bloom. Light is to be obtained through a skylight which forms the roof, and also through a

succession of high-up windows. If, by such a surrounding of walls, sun and air may be sacrificed—as at first seems to be the case—there is really little less of these than if the space were walled only by glass and copper, for the height of neighboring buildings precludes an open exposure. In being made an integral part of the house, there is yet a sense of refreshment to be had in emerging here from the dining-room, from which three arched openings provide an egress. As the house has a basement kitchen, a full story exists below, and the side yard is to continue under the conservatory.—*Ed.*



AN OLD HOME, BERMUDA

CORAL-STONE AND PALM.

THE HOMES OF BERMUDA.

A land where quarries obey carpenters' tools and houses are "shingled" with stone; where oleanders grow wild for fuel and turf is a costly luxury; where rain and drought leave no interval, and cedar and palm hobnob thriftily, would be a yet stranger paradox if its conditions had not developed unique house and garden forms. Bermuda is one of the largest coral atolls known—the only one with a considerable population. It has no frost to kill tropic plants or extreme heat to blast those of temperate zones. Rain often visits it, but through its porous rocks soon sinks out of sight, except where, rather brackish, it lingers above the heavier salt water in unused wells. These basic peculiarities have modified all men's ways of building and planting. As one threads in approach the coral reefs that have lined all its channel-ways with wrecks, the main notes of Bermuda show at once in vivid green and clear white. Most of the foliage retains its color all the year, and in the crests of the old cedars it darkens to a tone like that which, in the stone pines of Southern Italy and the Turkish cypresses, gives to plantations their points of highest emphasis. The white is furnished by the dazzling coral sand of every beach, by all the roads and drives and by the houses themselves, which are uniformly of the same high key, as they peep out from the masses of green that encompass them. The color is a necessity peculiar to the soil, for the coral stone of which everything is built crumbles rapidly, unless it is kept constantly

covered with fresh whitewash. Something very theatrical is the result. What looks at a distance like a new villa of marble, dignified by a stately avenue of approach, may prove to be the home of a small farmer whose main interest is a patch of onions, or of Easter lilies—each set in a pocket of red cedar mould, as fine a natural garden soil as men know. But there are many houses which less belie their appearance, being really pretentious, and dating from the days of the blockade-runners who made this their harbor, or sheltering the higher officers of the British garrison.



ALONG THE SHORE

BERMUDA

Early Bermudans built gabled and chimney stacked cottages in the English way, and some of these buildings, neglected and crumbling into early ruin, are very picturesque. But the local form soon made its appearance. It suggests Italy in its roof lines, its occasional deeply-recessed *loggia* and its universally sharp white masses. It strongly imitates our own country

houses in its broad porches and verandas, and is in construction like nothing else in the world. Everything is built of the underlying coral stone. This is quarried at many places on the islands, and can be worked with chisel and saw to any shape when freshly cut; but on exposure it soon hardens, darkens and crumbles. Ordinary lumber, all brought from the United States or Canada, is dear, and so sparingly used as to open the eyes of a northern architect. The stone is sawed out in blocks of varying size, but usually about four inches by six, and twelve inches long. All the outer walls are laid in double courses of these blocks, the partition walls frequently of a single course but six inches thick. The



A QUARRY CARPENTER

BERMUDA

plan of each story is necessarily like that beneath; a large room may cover two smaller ones, but never the reverse, and there are few closets and storerooms.

When the height of a story is reached, the floor beams—of amazing lightness—are laid upon the walls. Ordinary rooms are floored upon 2" x 6" scantlings, generously "bridged"; quite large rooms upon 2" x 8" joists. Only in houses of considerable pretensions are the floors firm to

the tread; but the tremor of the slighter houses, though unpleasant to Northern visitors, does not annoy those accustomed to it. The most remarkable economies of framing, however, are accomplished in the

roofs. These are pitched at an angle seldom more than 25°, and are raftered with 2" x 4", 2" x 5" or rarely, even in the best houses, 2" x 6" scantlings. The attic space forms a protection from heat to the rooms below; it cannot be divided into low chambers with



A BERMUDAN ROADSIDE

dormer windows because the slender roofing timbers must be kept up to their work by elaborate bracing, which makes each long rafter form, with the corresponding ceiling-joint below, what is practically a lattice girder, thus occupying a space which might otherwise be available.

Upon this seemingly flimsy, but really sturdy, structure are laid wide slabs of coral stone in courses a foot or more to the weather.

However, as they are but an inch thick and comparatively light, the burden is less than it seems. Doors, mouldings,



AN OLD HOUSE AT PAGET

BERMUDA

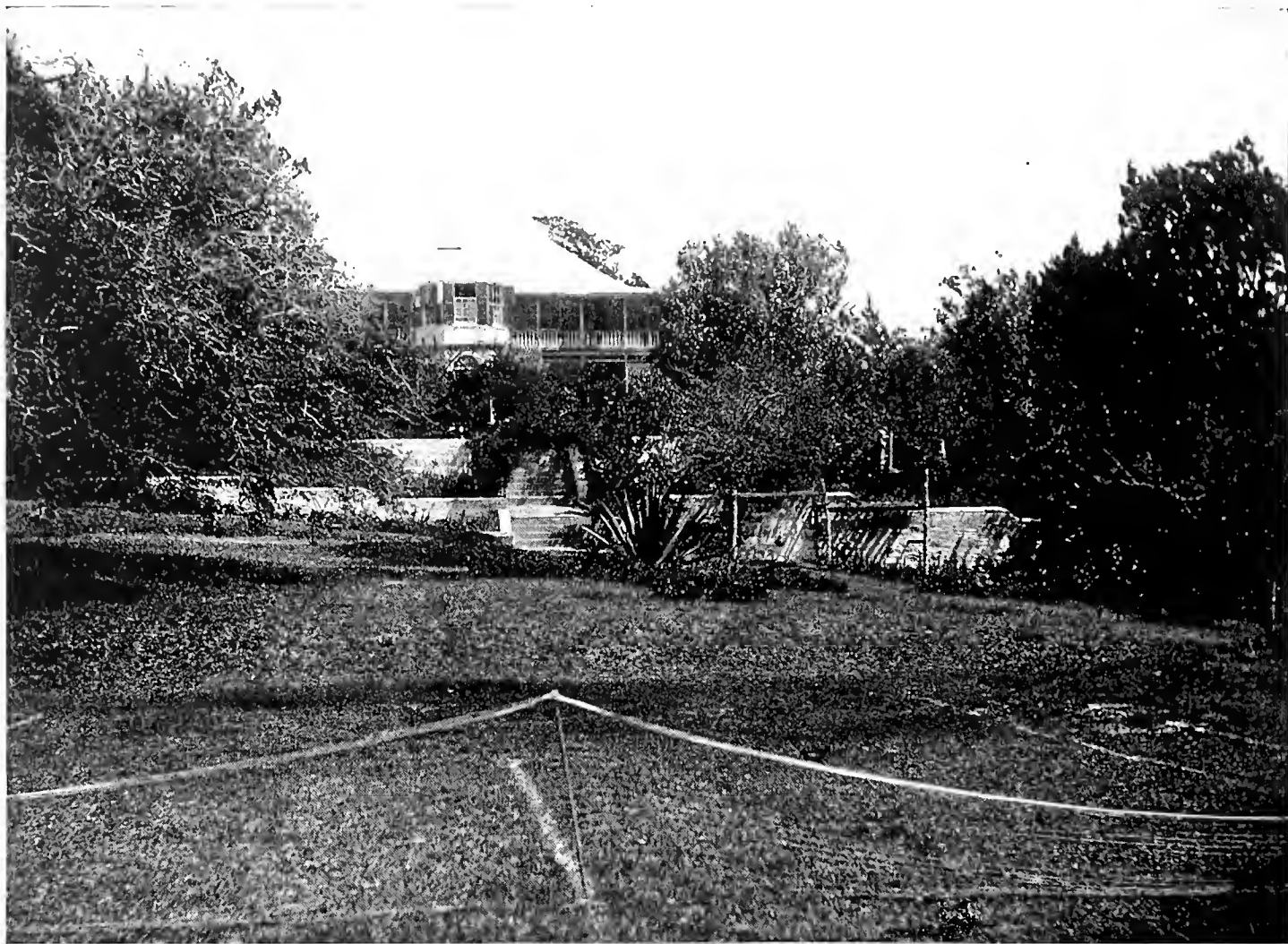
window sash, the bright green blinds with which every window is shaded, all come from the great factories in the United States, ready-made. The poverty of design in these important details is one of the most serious drawbacks of these singular houses; but the generous space, the wide openings, the big porches, the outdoor life which goes on nearly all the year round, soon reconcile one to that sameness of detail, which doubtless

permits the dignity of general outline the greater scope, as the houses are seen behind



THE POET MOORE'S HOUSE

BERMUDA



A GARRISON OFFICER'S RESIDENCE

BERMUDA

their living walls of green. On the whole, there must be few places in the world where homes of dignified appearance, considerable space and a fair degree of comfort are so cheaply built or so numerous. Perhaps because Bermuda is a garrison post, where many officers of East Indian experience have built homes, many houses follow the bungalow type of construction, with one story over a capacious basement; and of the two-story houses, some show



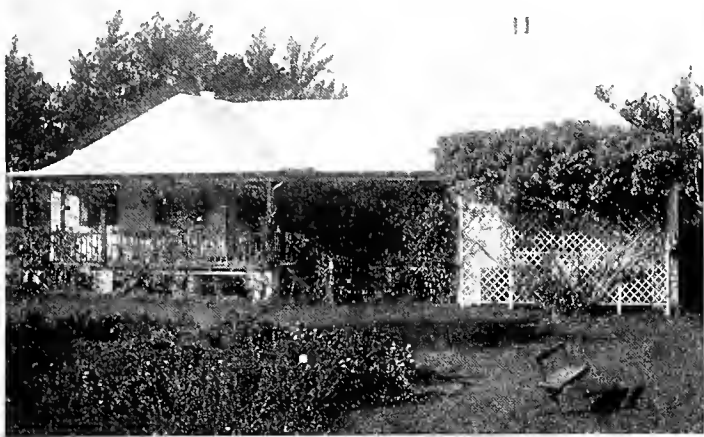
ENTRANCE TO AN OFFICER'S RESIDENCE

the influence of Indian bungalow forms, not always to their advantage. But if the severely plain structures of this type are anywhere appropriate, they are so here, shaded by luxuriant masses of foliage, their marble whiteness relieved by sharp contrasts of light and shade. No Bermudan has an excuse for not surrounding his home with garden beauty. Land is not expensive, and even upon small village plots, an infinite variety of planting is

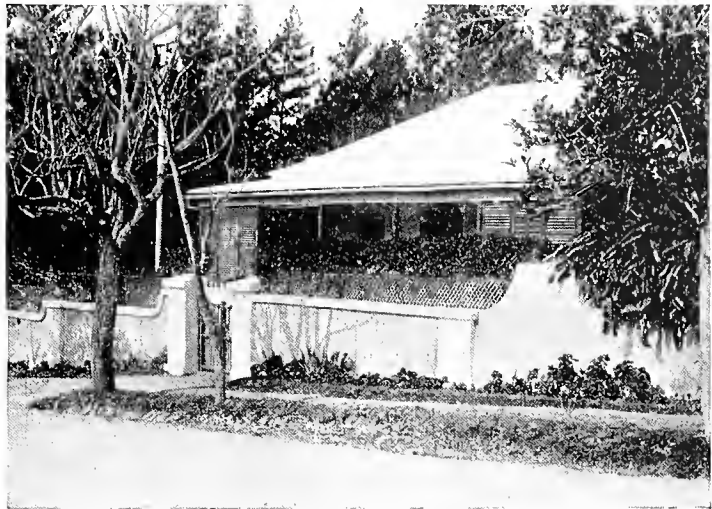


A TERRACED APPROACH

OFFICER'S RESIDENCE, BERMUDA



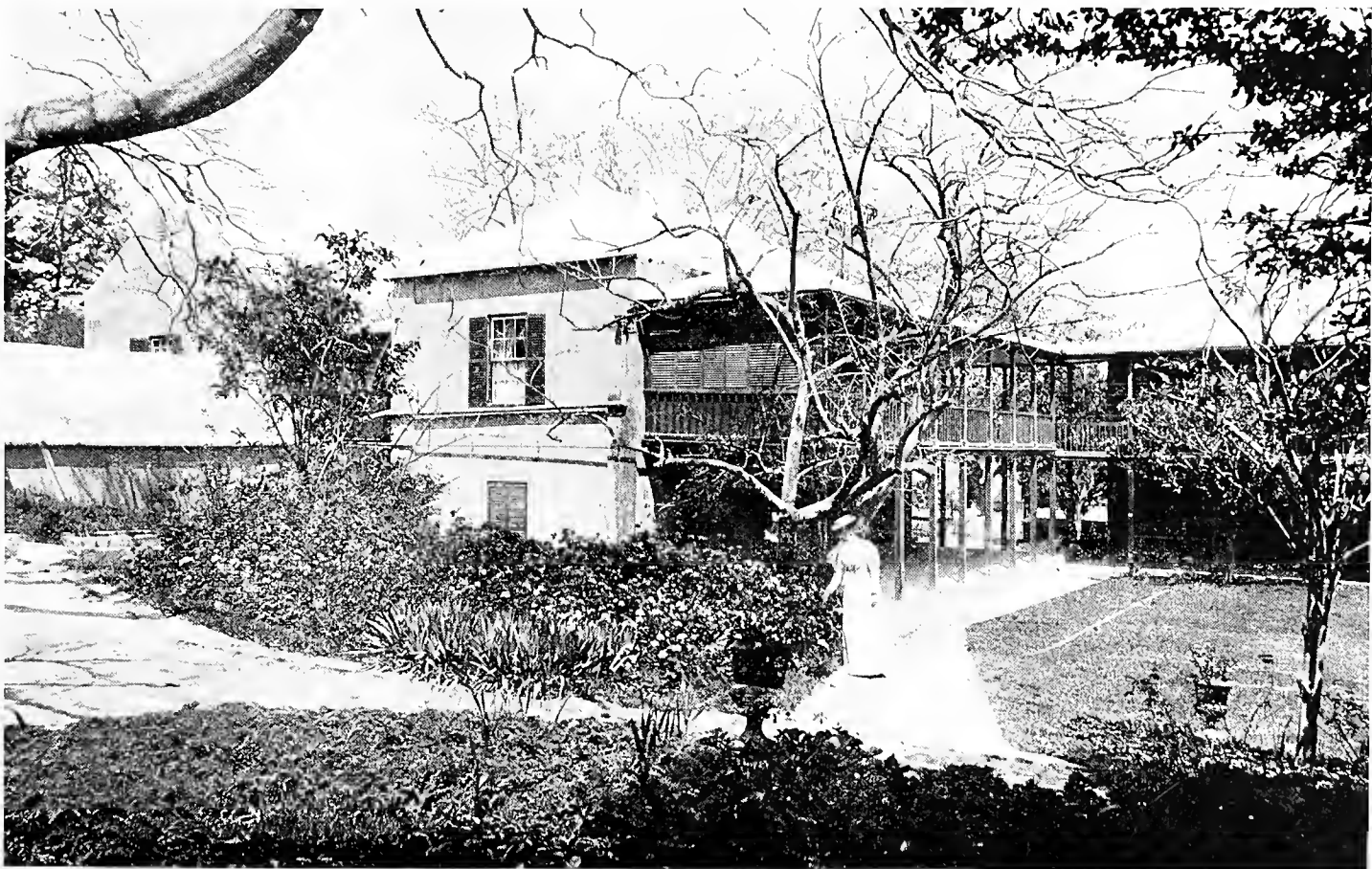
"UPLAND VILLA"



THE BISHOP'S LODGE

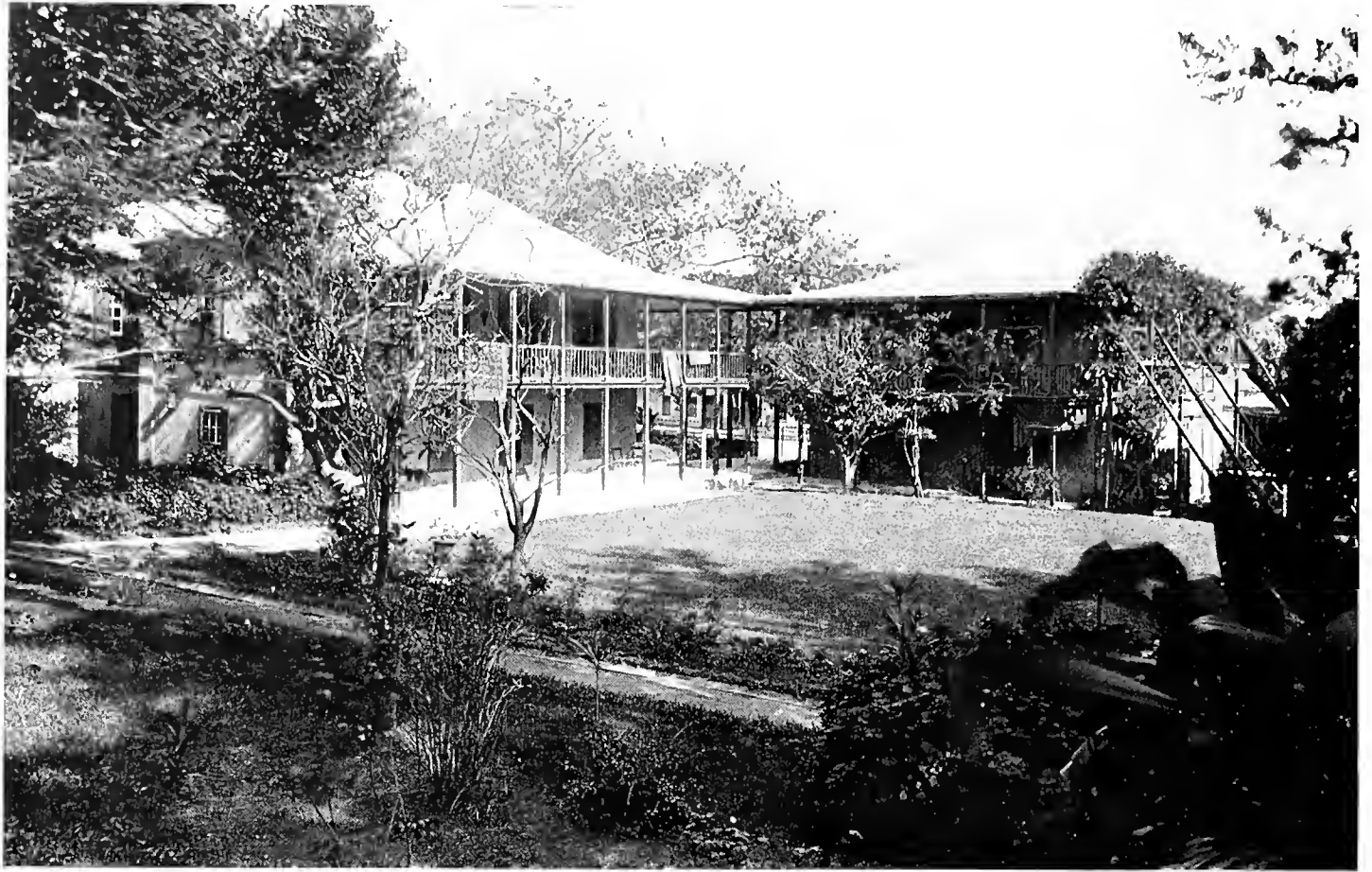
practicable. The whole island group is like a museum of rare growths from every land. Curiously, good grass is, in its perfection, the rarest luxury. As all water used must be stored in cisterns, it is hard to provide enough to keep a large lawn in good condition. This may account for what at first seems an excess of plantation, a tropic richness of effect which narrows vistas and restricts open spaces, but which, after all,

justifies itself where sunlight is intense. The stately royal palm, the most impressive tree upon the islands, grows too slowly for much use in gardening, but there are smaller varieties, the date palm, the gru-gru, the screw palm and the common palmetto, that more quickly fill their places. For dark background masses, nothing could be better than the cedars that grow freely in the red dust of their ancestors; and in winter the bare



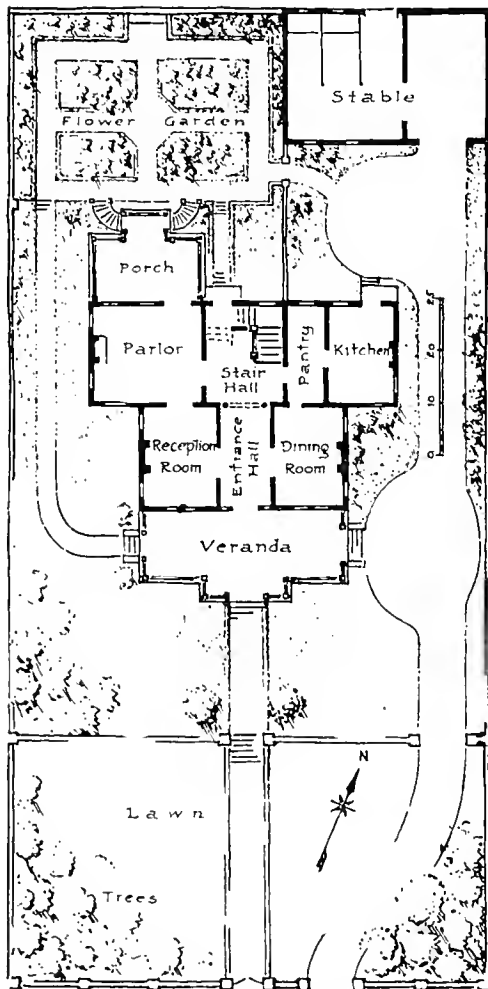
A TROPICAL HOME

BERMUDA



A HOUSE AND PLAYING LAWN

BERMUDA



A BERMUDAN PLAN

branches of the calabash trees and the avocado pears furnish an eerie tint of grayish white, an admirable mean, in the extremes of color values which characterize the landscape.

The glaring white of the coral-stone walks and drives dictates that they be kept narrow, direct and moderate in number. The southern exposure is the favored one; here are found the wide porches, the grassy terraces, whereon in the late afternoons society disports itself.



AN ENTRANCE

BERMUDA



ONE OF THE OLD LANDMARKS

BERMUDA



A MAHOGANY TREE

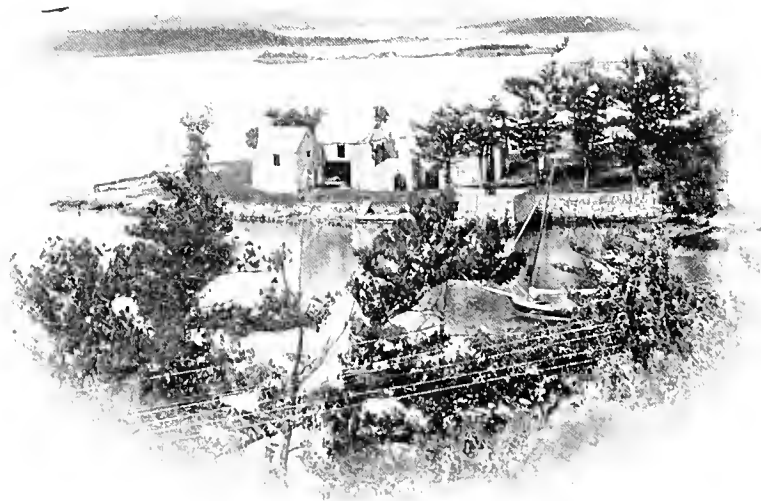
BERMUDA

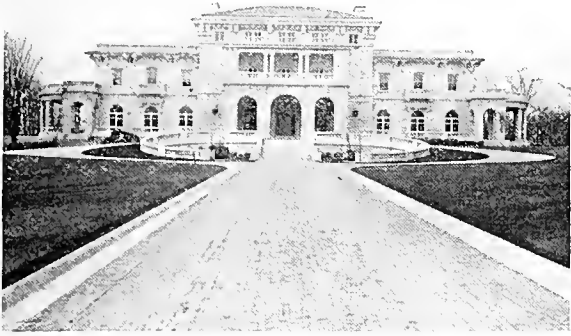
The entrance walks are usually edged with cool green box ; and carriage turns are in the more careful plans arranged to the northeast, so that their wider glare may not reflect the sun into the living-rooms. There is enough summer in most parts of the United States to make this an example worth considering in grounds of ordinary dimensions. The error of using up an excessive proportion of available space in complicated walks and drives is less common in Bermuda than farther north. The Islands afford a rare opportunity, less often utilized than it should be, for water gardening. Upon low-lying sites near the sea, one has but to scoop out the basic rock below sea level to have his ponds and moats fill with exquisitely clear salt water that rises and falls with the tides and in which fish, that rival in coloring the flowers of the garden, thrive mightily. A visit to any aquarium reveals the wonderful possibilities of the island fishes ; perhaps a dozen or more fine country-seats have made use of the stolid "grouper," the flaming "parrot fish" and the translucent "angel fish" as adjuncts of their formal ponds and water alleys. And there are several places which utilize in larger sheets of water the uncanny growth of those amphibious puzzles, the mangroves, which bury their branches as well as their roots in the water and thus gradually encroach upon it. Fresh-water plants can only be raised by

providing ponds with impervious bottoms and suitable soil on top of that.

The early settlers in Bermuda found almost nothing but the cedar. They took there everything they knew, every homely plant of home gardens, and more slowly added the growths of the tropics. Almost anything that will grow anywhere will grow here. It is as if the wealth of Kew, or Fairmount, or the Bronx were turned out of doors to riot with the sturdy flowers of New England and Old England. A hedge of sweet peas and a great bed of Easter lilies will be in bloom at the same time. *Convolvulus* takes its noon nap in the shade of banana plants, whose long narrow leaves are forever split and battered by the wind. Oranges and lemons—ornamentally rather than commercially used—gleam golden in the foliage, and the pawpaw tree towers high above sugar-cane patches. *Pride-of-India* trees shade the streets of Hamilton and huge mahogany and india-rubber trees are among the occasional ornaments of private grounds. But always it is the palm, in some one of its many forms, that rises from the foreground to give the aspect of planted groupings an exotic look ; and ever in the background lurks the cedar, as if to remind the observer that it is after all the "oldest inhabitant"—as it is one of the most beautiful.

John Langdon Heaton.





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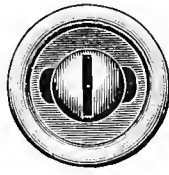
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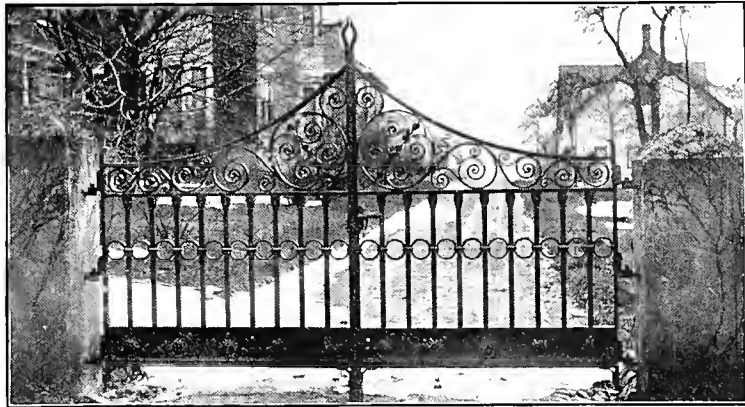
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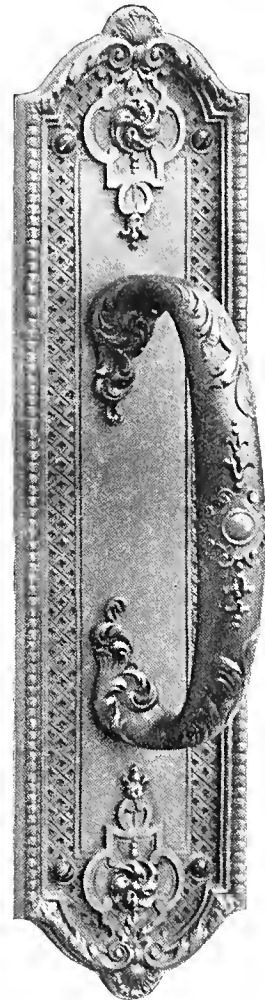
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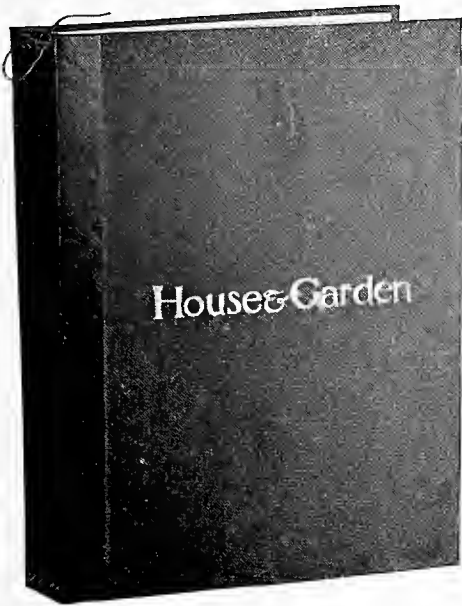
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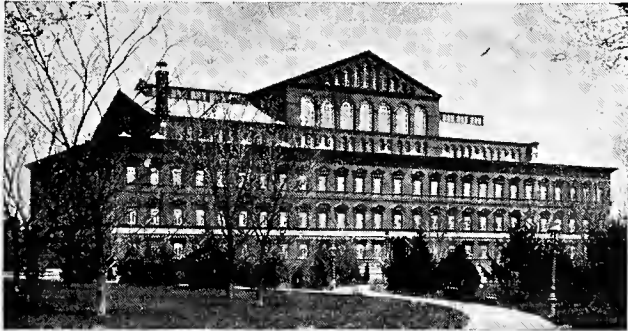


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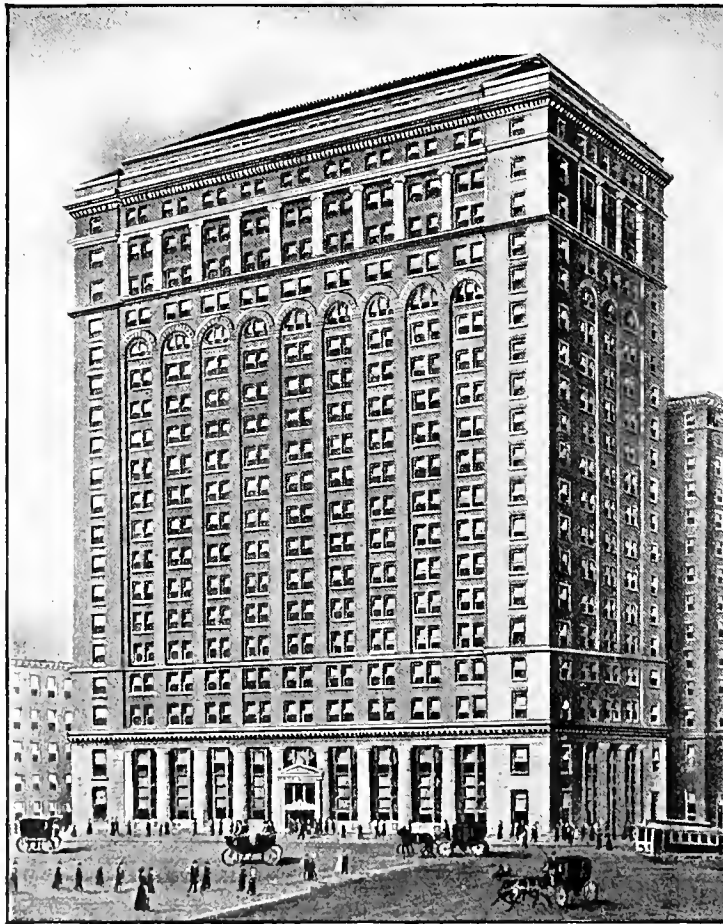
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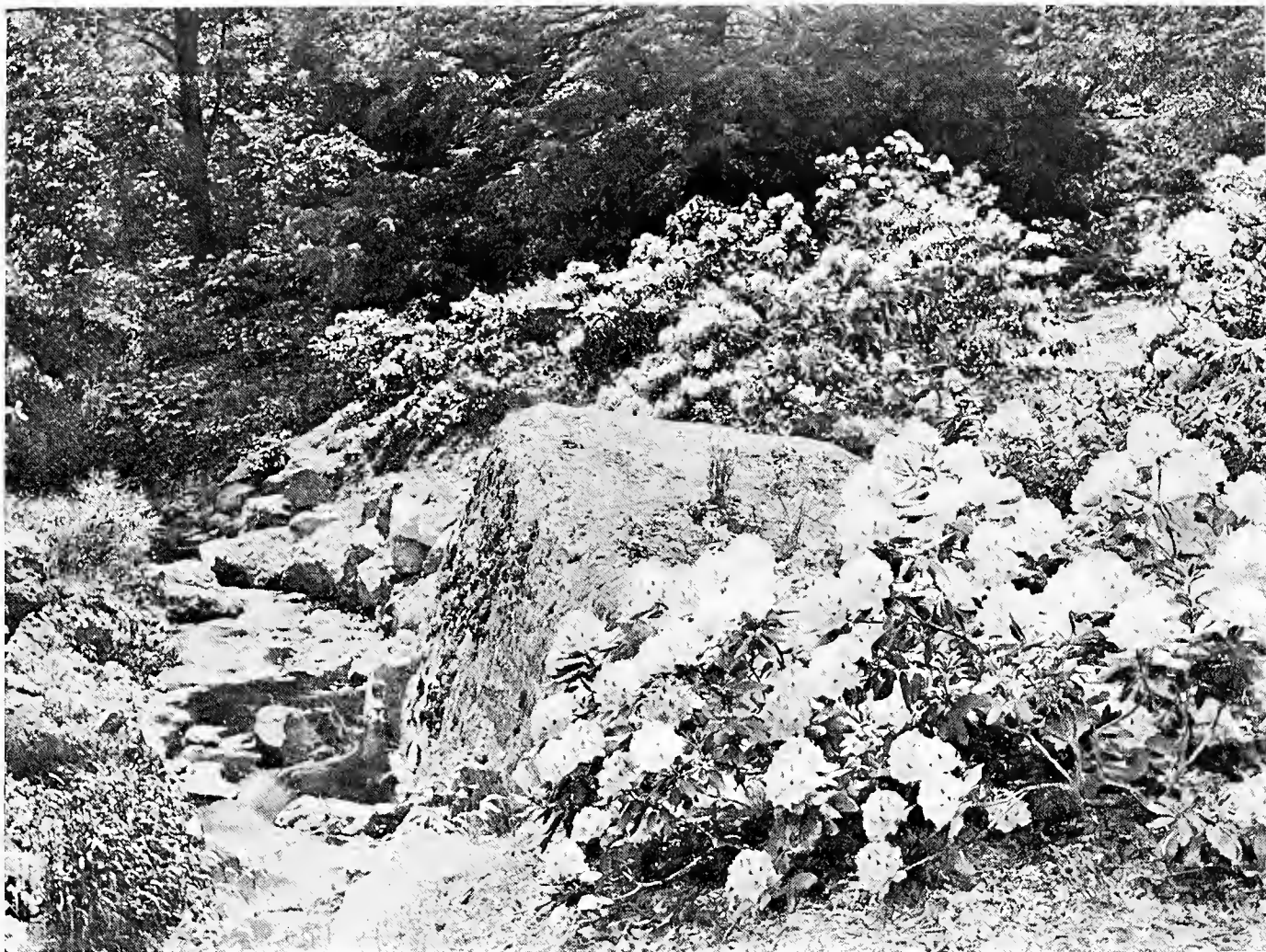
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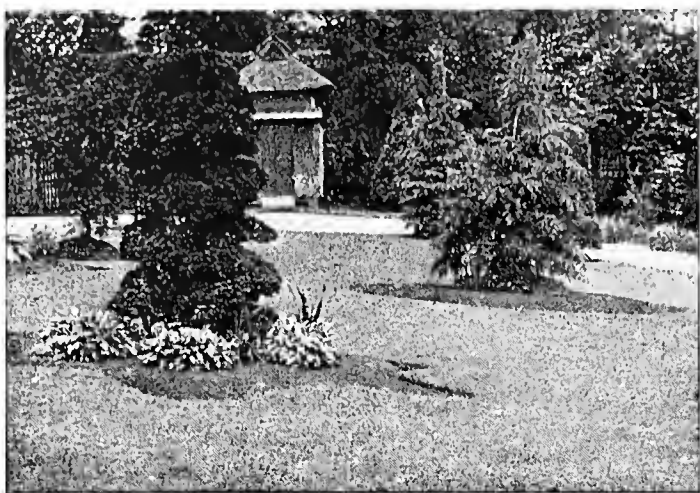
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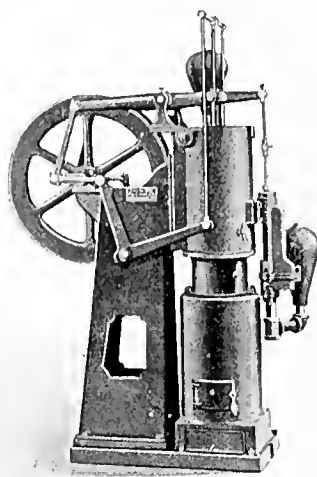
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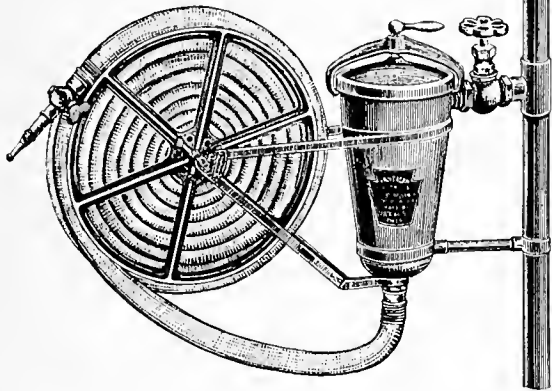
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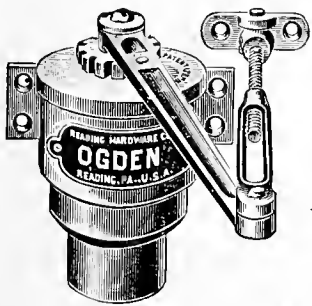
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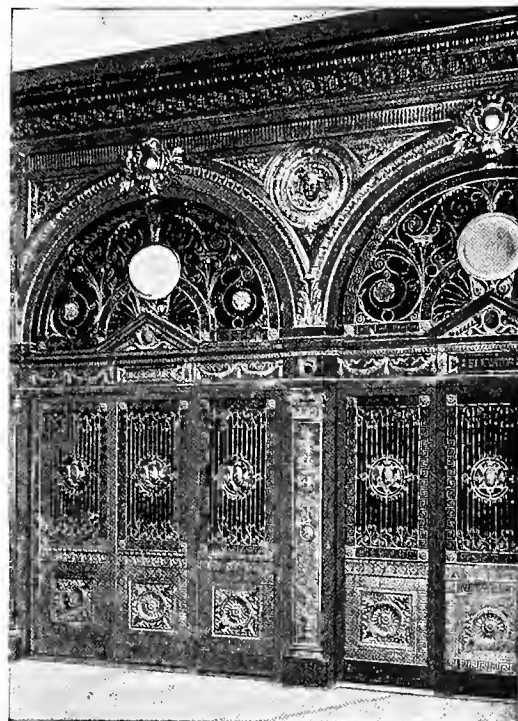
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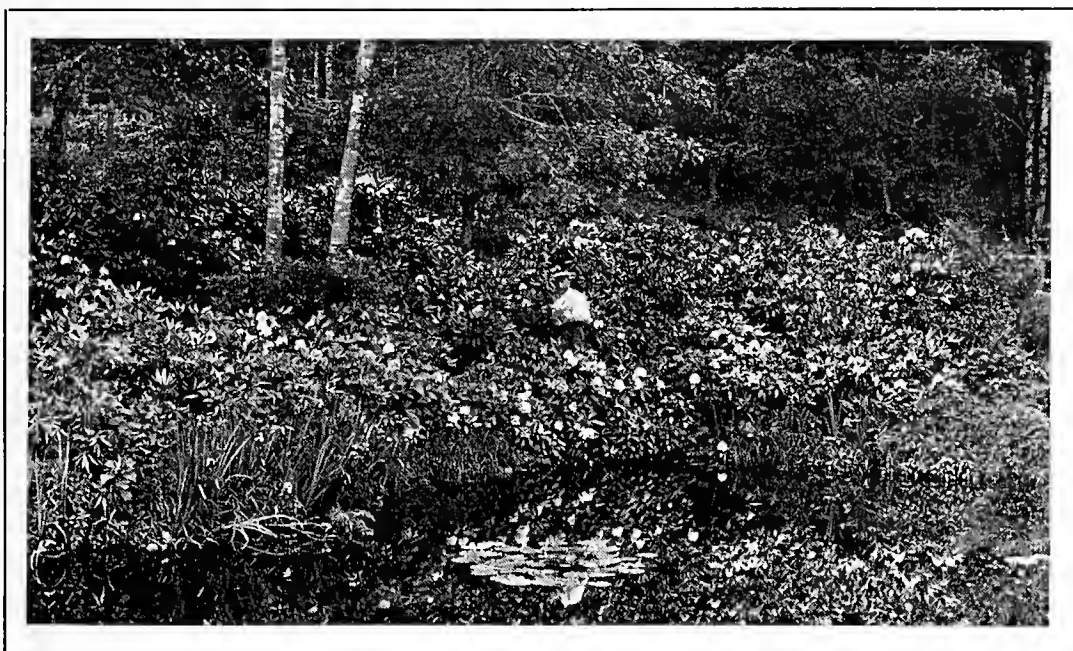
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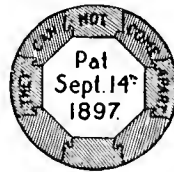
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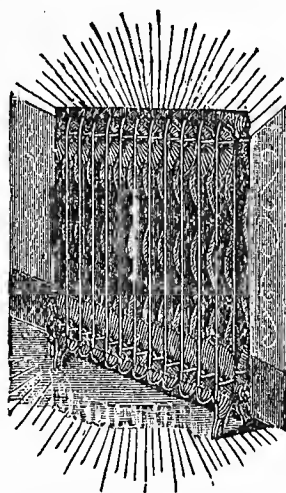
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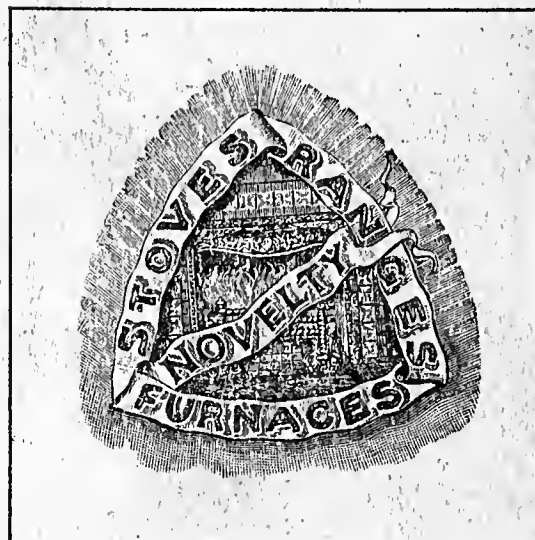
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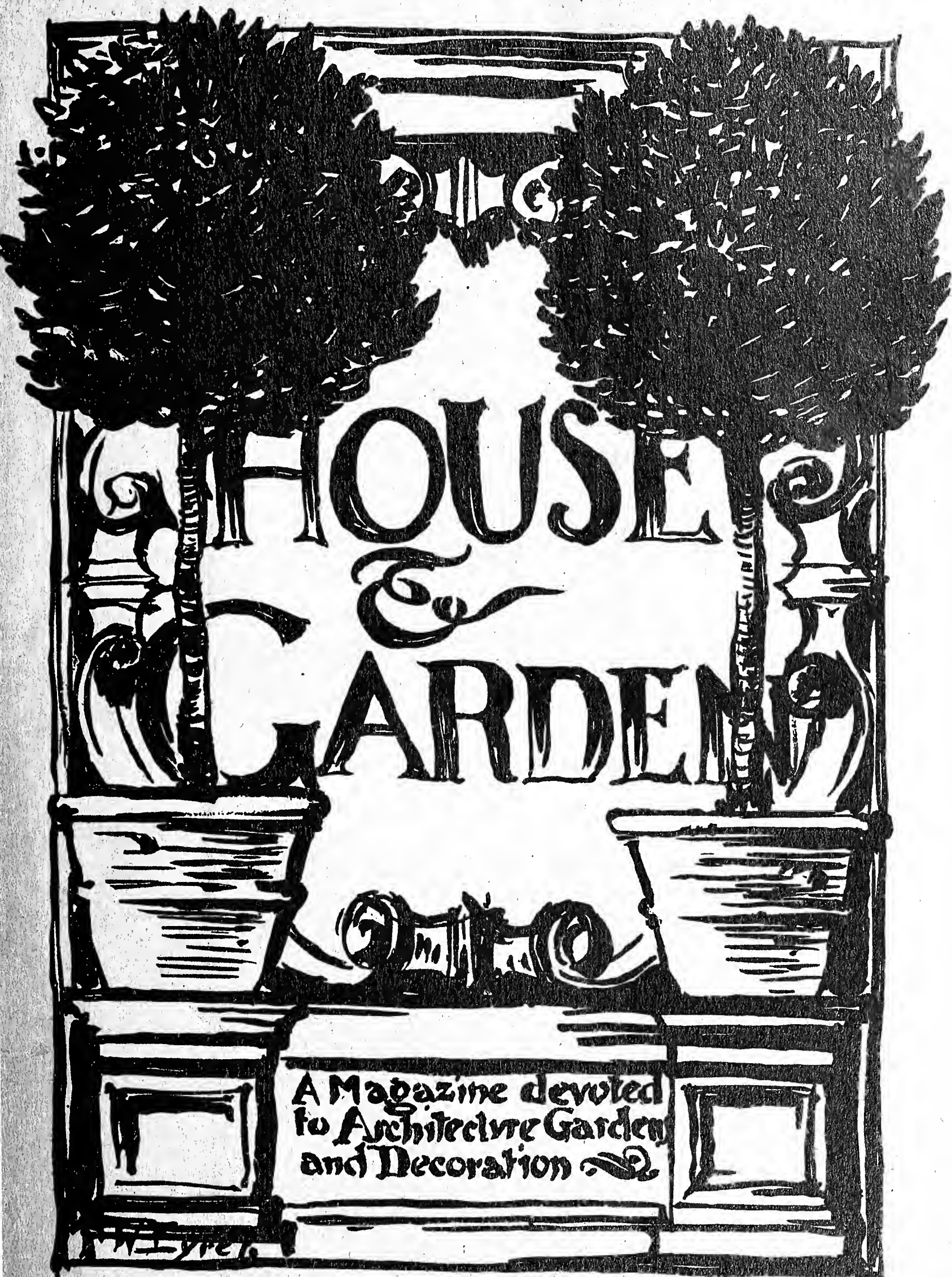
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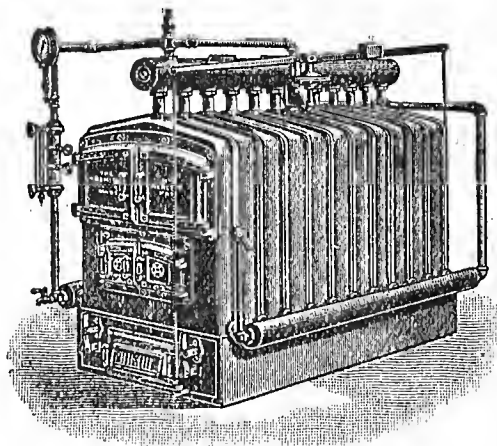
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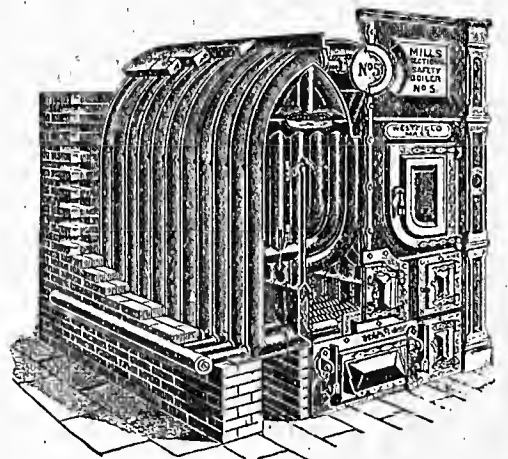
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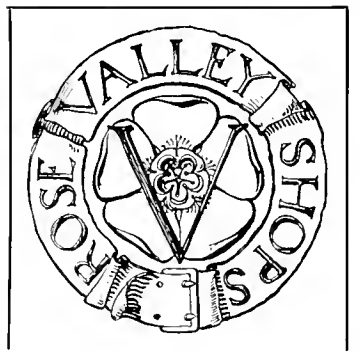
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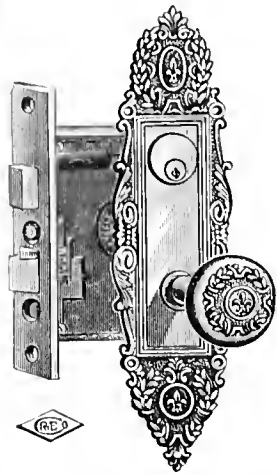
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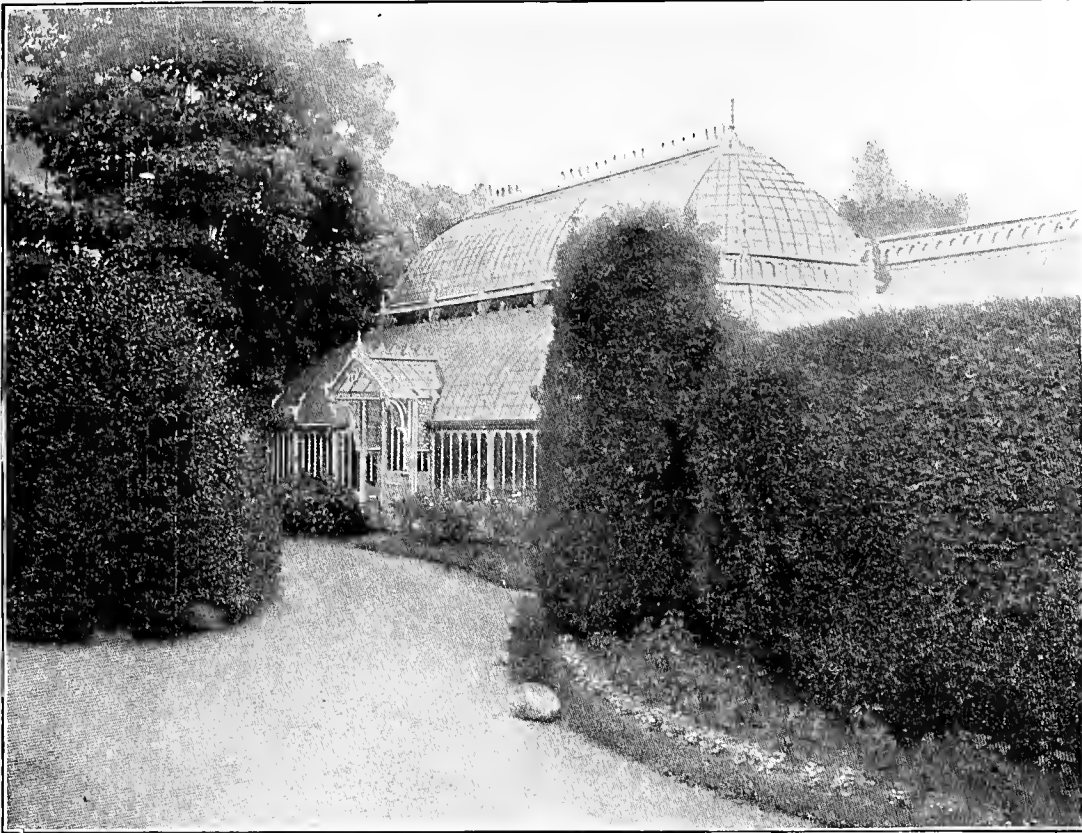


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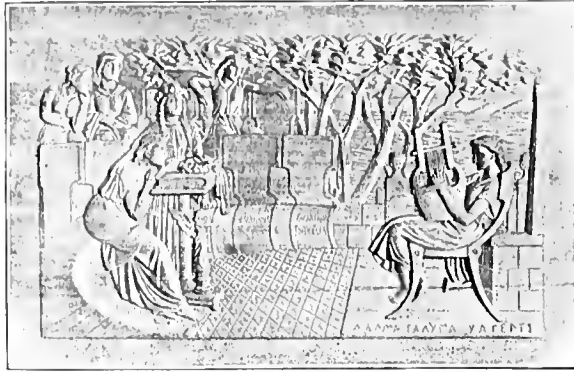
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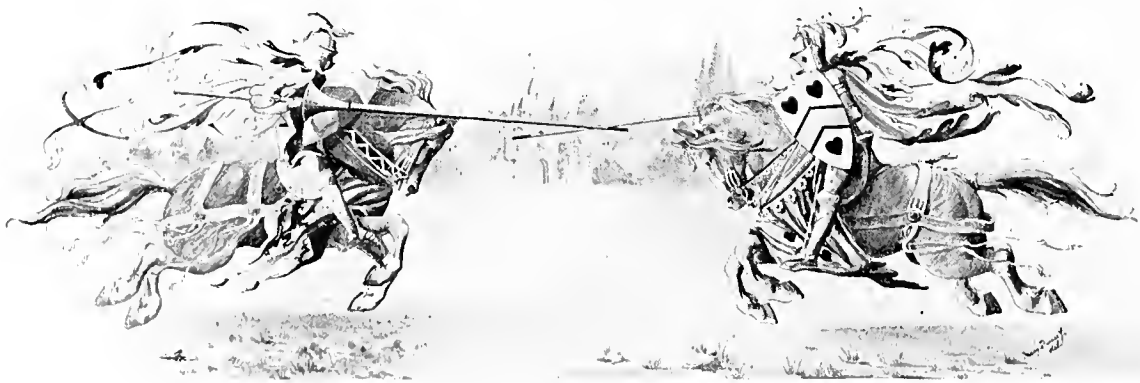
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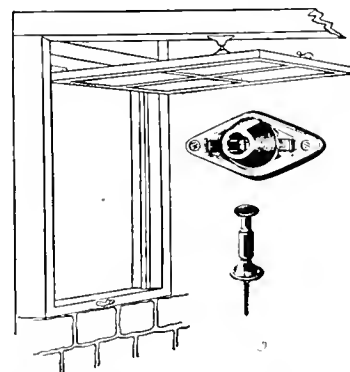
	PAGE
GLIMPSSES OF MODERN PERSIA (<i>I, The Gardens</i>), by JOHN KIMBERLY MUMFORD.	<i>Illustrated,</i> 175
THE BODILY TEMPLE, by CLAUDE BRAGDON.	<i>Illustrated by the Author,</i> 192
A SMALL NEW HAMPSHIRE GARDEN, by HERBERT D. CROLY.	<i>Illustrated,</i> 199
THE ORNAMENTAL MOVEMENT OF WATER IN CITY STREETS (<i>II</i>), by SAMUEL SWIFT.	<i>Illustrated,</i> 205
TYROLESE ARCHITECTURE (<i>IV, Villages</i>), by HERBERT C. WISE.	<i>Illustrated,</i> 215
THE SOLDIERS' AND SAILORS' MONUMENT COMPETITION IN PHILADELPHIA.	<i>Illustrated,</i> 228
NOTES AND REVIEWS.	232



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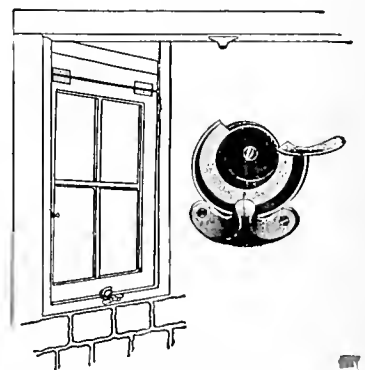
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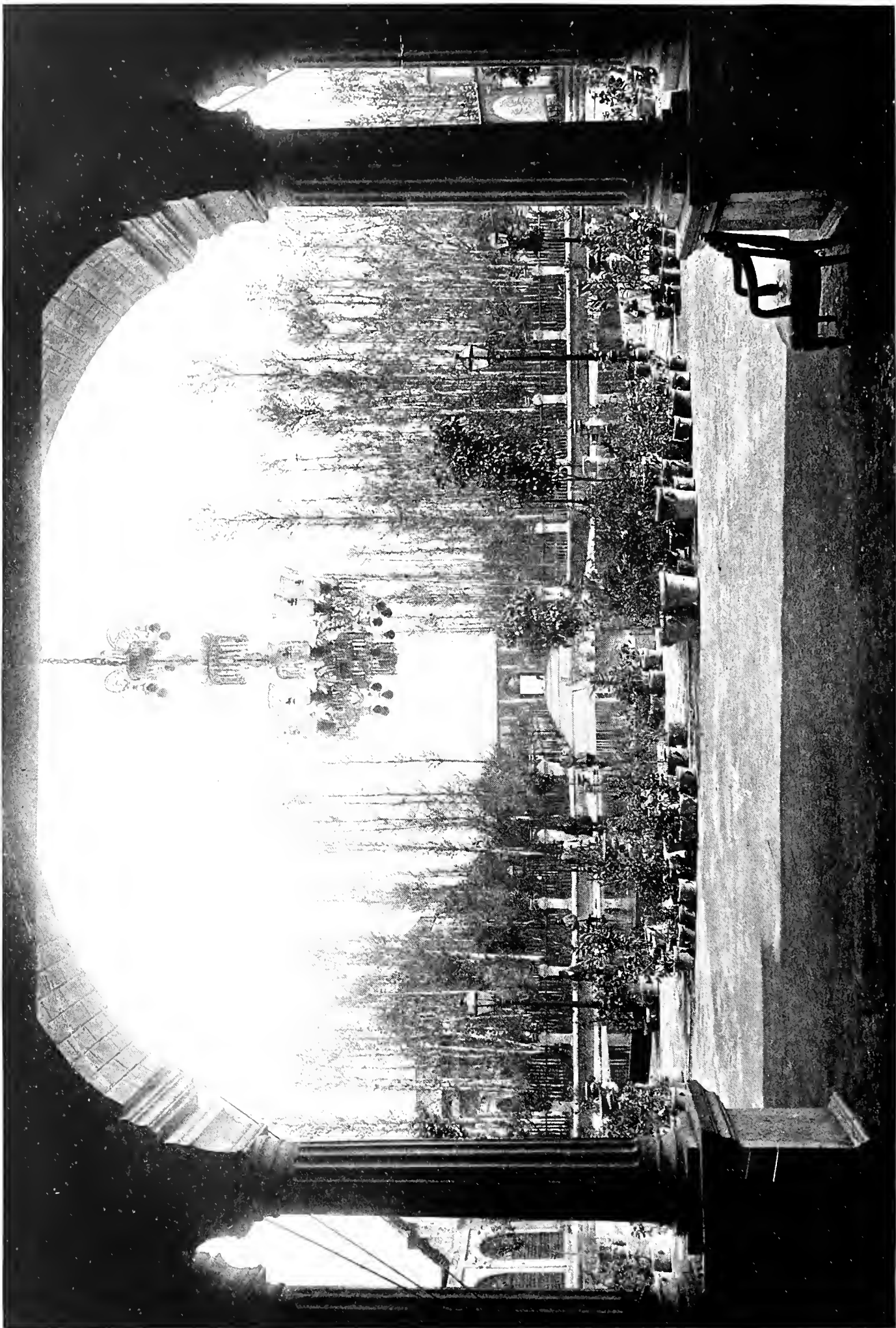
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A PRINCE'S GARDEN, PERSIA

House & Garden

Vol. II

MAY, 1902

No. 5

GLIMPSES OF MODERN PERSIA

I. THE GARDENS

IN spite of the conscientious efforts of travelers to disillusionize it, the West has tenaciously declined, for a matter of some hundreds of years, to modify its conceptions of the Orient. It is persistently incredulous of the decay, the threadbareness, which pervades practically all Asiatic life. The Persia the Occident dreams of is the Persia of the Arabian Nights, of Lalla Rookh, of Saadi and Hafiz, of Ismael, and of Shah Abbas, the Grand Monarque, who to reclaim a cheerless swamp district on the shores of the Caspian and unite it with the rest of the empire, built a superb causeway of solid masonry, some hundreds of miles in length, the crumbling ruins of which still look out dismally upon the wayfarer through that pestilential country. The Persia which had its capital in Ispahan was worthy heir to the splendors of Persepolis and Ecbatana. In such a land, blooming from the Caucasus to the Indian Ocean, the bulbul may indeed have wooed the rose, to the music of fountains, in gardens shining with apples and pomegranates of gold. Mahomet's alluring

picture of Paradise was only a sublimation of the Persian gardens of his day; but that day has irretrievably departed.

The hard fact is that the modern Persian thanks God if he can make one blade of grass

grow where two grew before, and even that is not an unmixed blessing, for it is certain to subject him to redoubled exactions. In Persia nothing fails like success; nothing is so dangerous or so expensive, even in the humblest sphere. Art and the worship of the beautiful do not go hand in hand with grinding poverty or insatiate official greed, and the Persian garden of to-day, even at its best, is like the palace and the temple, only a pale simulacrum of its predecessors.

Unpleasant as such an exordium may seem, it is

essential to establish this general background of condition, without which any truthful description of Persian institutions as they now exist would seem grotesque.

If asked for the causes of artistic decline in Persia, I should say consuming poverty, and back of that, recurrent northern and eastern invasion, with its attendant spoliation



IN A PERSIAN GENTLEMAN'S GARDEN



A FRAGMENT OF OLD PERSIAN MASONRY

and inevitable racial change. What the hordes of Genghis and Timur began, the present reigning dynasty of Kadjars, out of the rough Caspian province of Mazanderan, has about completed. In the beginning the Kadjars were warriors and vandals; they were never artists. The first of them inaugurated his reign by obliterating all traces of the estheticism of the Sufi and preceding rulers. In its stead he and his successors have created nothing. In the north of Persia the people are Turko-Tartar,—Mongol if you please; only a tinge of the old Persian blood remains. And the Turkoman, swinging like a pendulum between Kashgar and the Bosphorus, has not marked his way with monuments of the good, the true or the beautiful. Progressing southward, in Hamadan, Ispahan, Shiraz, the Turkish dialects gradually give way to Persian, the manners improve, refinement increases. But the poverty is everywhere. Every satrapy in the kingdom, South as well as North, has to surrender its flesh and blood into the hands of some Kadjar princeling or kinsman by marriage, in the way of tax. From every

acre of tillable soil more than half the harvest is squeezed to satisfy the official Juggernaut. The money thus wrung from them flows in a ceaseless stream, each great or petty official taking his “bit” as it goes to the capital. Here is wealth, real wealth; here is display; here is superficial beauty begot in extravagance; here is improvidence which seems to forget to-morrow. Thus is Persia made poor and ever poorer. Already it is a debtor nation, shorn of territory, and mortgaged to the eyes, but how much of riches is hidden in the Imperial secret coffers no man knows—certainly the hoardings of centuries. Some egregious claims, set at a figure which it was thought would make the country bond-slave for decades, have been met with ease and serenity after a little visit to the treasure chambers.

But it is the exactions of the present that are used to beautify Teheran; and in a way it is beautiful. In pictures, the Persian buildings, erected a century or more ago, with their plenteous stucco work and ornamental brick and mirror glass, with their graceful mingling of old Iranian and Arabic with

the Greek and Florentine forms, and something of the Russian new-birth, which is in itself half Asiatic, have a charm most satisfying to Western eyes; they are picturesque. Close at hand, much of the glamour goes, and it is all crude and uninspiring enough; but there is still a magic in the Persian atmosphere that turns its masonry to gold when the sun shines, and makes over its interminable stucco into cameos.

The spirit of the people at large, though, is moribund. There remains only the lees of the old civilization. But so long as he

place that is wooded or even green. Plains which in bygone time have been famously productive show caked and hardened soil, tilled in the archaic way, sometimes with comparatively generous harvest, but far oftener with little or no return.

This state of things seems to be the result of unchecked denudation and consequent destruction of the water supply, the lack of which is sadly apparent everywhere. Over a long and sorry stretch of country I rode with the man who is now in charge of the Shah's experimental farm at Teheran. While



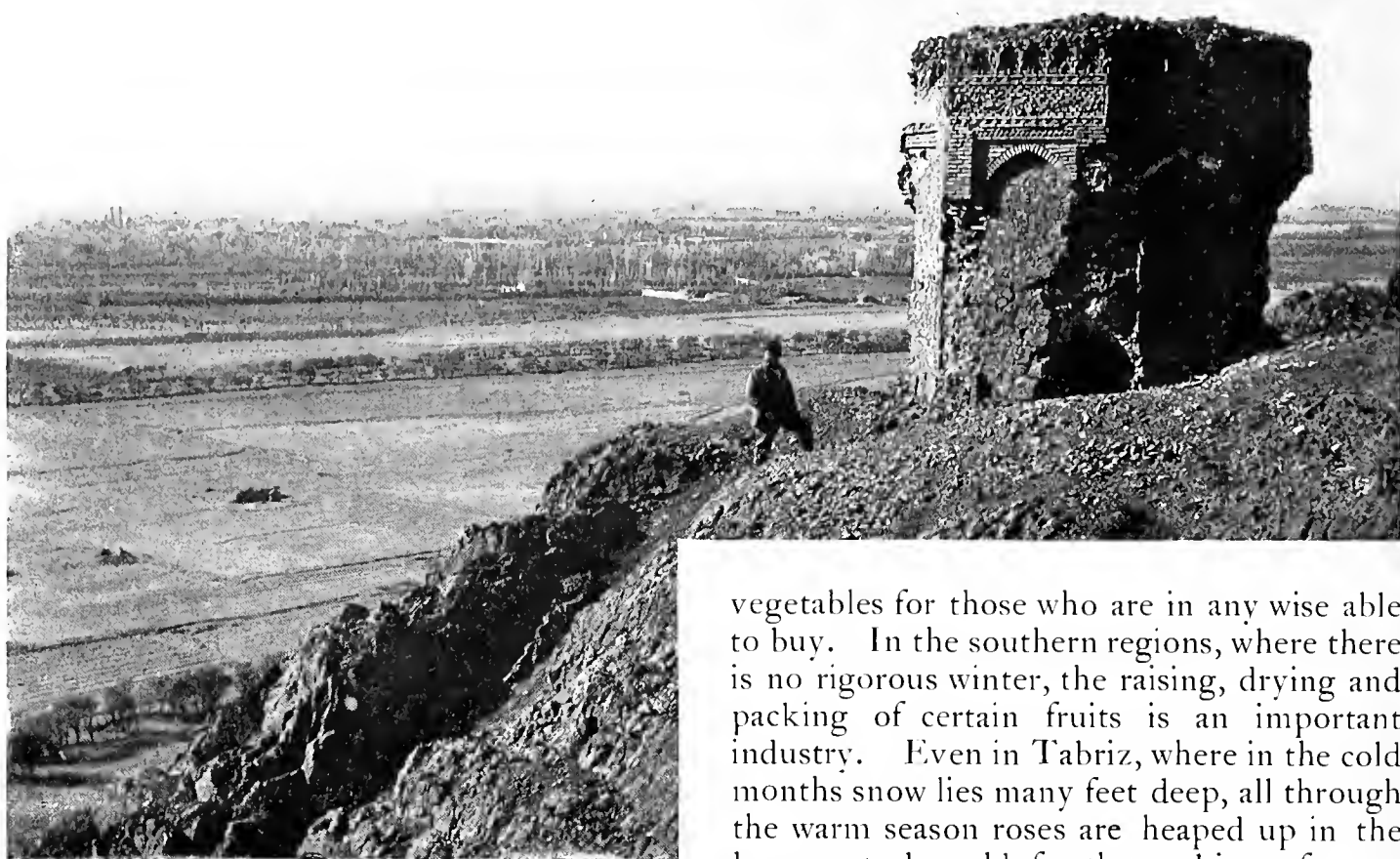
APPROACH TO A TYPICAL PERSIAN VILLAGE

shall draw national breath the Persian will continue to preen himself in a fool's paradise. He is the true Quixote of the new century. Persia, in his walk and conversation at least, is still the greatest and most beautiful land under the sun.

The general impoverishment is nowhere more painfully manifest than in the agricultural conditions. Districts which early European voyagers found well wooded or abundantly fertile present to-day only a dreary monotony of bare, relentless, yellowish gray hills, fruitless fields, and highways along which one seldom happens upon a halting

of Oriental birth, he had been trained in agriculture and horticulture in the best schools of Europe, and was a master of the science of cultivation in all its branches. "The soil is sick," he said; "it is dying of starvation and thirst. Given proper treatment and three-fourths of this country ought to be a perfect garden."

Proof of his declaration is not hard to find. Long distances apart, in the arid tracts of the northern plateau, there are water courses, where noisy streams tumble down from the distant wooded hills, always carefully prisoned, in their lower reaches, to turn



RHÉ (ANCIENT RHAGES) Remains of a once World-famous City

clumsy mills, (also heavily taxed) and then allowed to pass into the underground water system of *kanauts*, which is centuries old. It extends practically all over the country, and is of course badly in need of repair. It is from this network of primitive canals, devised by some wise monarch of old to prevent evaporation, that most of the cities and towns are watered, and from it, also, that the farmers, lease holders of great proprietary estates, flood their impoverished acres for an hour or two of an afternoon.

Where one of these hillside streams breaks at the foot of a slope, there is the densest and most succulent of herbage; and flowers without number and of a million hues make the air fragrant far about. It is in such places, naturally, that the little village populations have lingered, and the road thereabouts often lies for miles between high-walled gardens and orchards, lavish in their productiveness and furnishing many a heavy donkey-load for distant markets. Time and labor are worth little, and in the cities there is usually an adequate supply of fruits and

vegetables for those who are in any wise able to buy. In the southern regions, where there is no rigorous winter, the raising, drying and packing of certain fruits is an important industry. Even in Tabriz, where in the cold months snow lies many feet deep, all through the warm season roses are heaped up in the bazaars, to be sold for the making of attar. This commerce is well under way even in May, while yet from the roofs of the city one may look up and see the snows heavy on the summits of Sahend.

Roses grow wild within reach of the roadway's dust, each bush bent with its burden of innumerable blossoms. Even upon apparently barren hillsides, without grass enough to hide the soil, flowers will be found growing in the springtime,—far as the eye can see, glorious in color, and hardy enough, it would seem, to thrive for a little while on the scant nourishment the dissolving snow has prepared for them.

Riding over the wastes of hill and plain, you discern the presence of cities and towns, not by masses of buildings or the gleam of spires. These are of the selfsame yellow gray hue as the country itself, but it is by the green which towers above the rooftops, by the clustered foliage, welcome as an oasis, that the traveler knows a city is at hand. Once inside the city gates, traversing the wretched streets, surrounded by the smells and the tumult, one is forced to wonder what has suddenly become of all the verdure. It seems to have vanished like a mirage. The



THE ROOFTOPS OF TABRIZ

Showing the Multitude of Small Gardens



TREE-TOPS OF SULTANABAD

Persia's Weaving Center

thoroughfares are narrow and bare. Rarely does one see open avenues of trees such as adorn American and European towns. On either hand are the endless mud walls, from ten to twenty feet high, just such as the traveler will have seen, half-fallen, all along the road, marking the sites of forsaken villages.

All the Persian city life, aside from that which surges and clamors and haggles in the bazaars, is hidden behind these forbidding barriers, and it is here that the gardens grow. Here rise the giant trees which are seen from afar, smiling above the city's heat and noise and filth. Here the Persian's flower-worship—an idolatry which no admixture of sterner blood can exclude from his nature—finds its shrine and its outlet.

I have driven to pay a morning call at the house of a rich Persian of the old school, and been forced to abandon the conveyance and pick the way on foot for half a mile through narrow, broken streets, between walls of most disheartening blankness, to be admitted at last, through a heavy wooden door, into a garden where the air was languorous with perfume and the eyes were dazzled by such prodigality of color as one never sees at home save in a park greenhouse.

The financial and civic status of a Persian may, in a way, be known by his garden. In the decoration of interiors he is not exacting, and as a matter of fact, not overburdened with taste or invention; though to be sure

the Eastern forms do not lend themselves to any great diversity in the ornamentation of rooms. The greatest charm that any apartment can possess is to have windows giving upon a garden in bloom.

The peculiar domestic and social arrangements which prevail in Persia necessitate the distribution of the home, so to say, a partition of it into departments, such as could scarcely be maintained in America, where all the house

is common to all the members of a family. In Persia the divisions of an establishment must be wholly separate, and the gardens are therefore distributed in such manner as to provide a pleasant outlook for all. In the more pretentious houses,—of the nobility or plutocracy—the *anderun* or *harem* is entirely distinct from the rest of the house, oftentimes a separate building, constructed in the form of a hollow square, offering no view on the outer sides, but with its inner windows and doors opening on a beautiful patio or court, with walks,

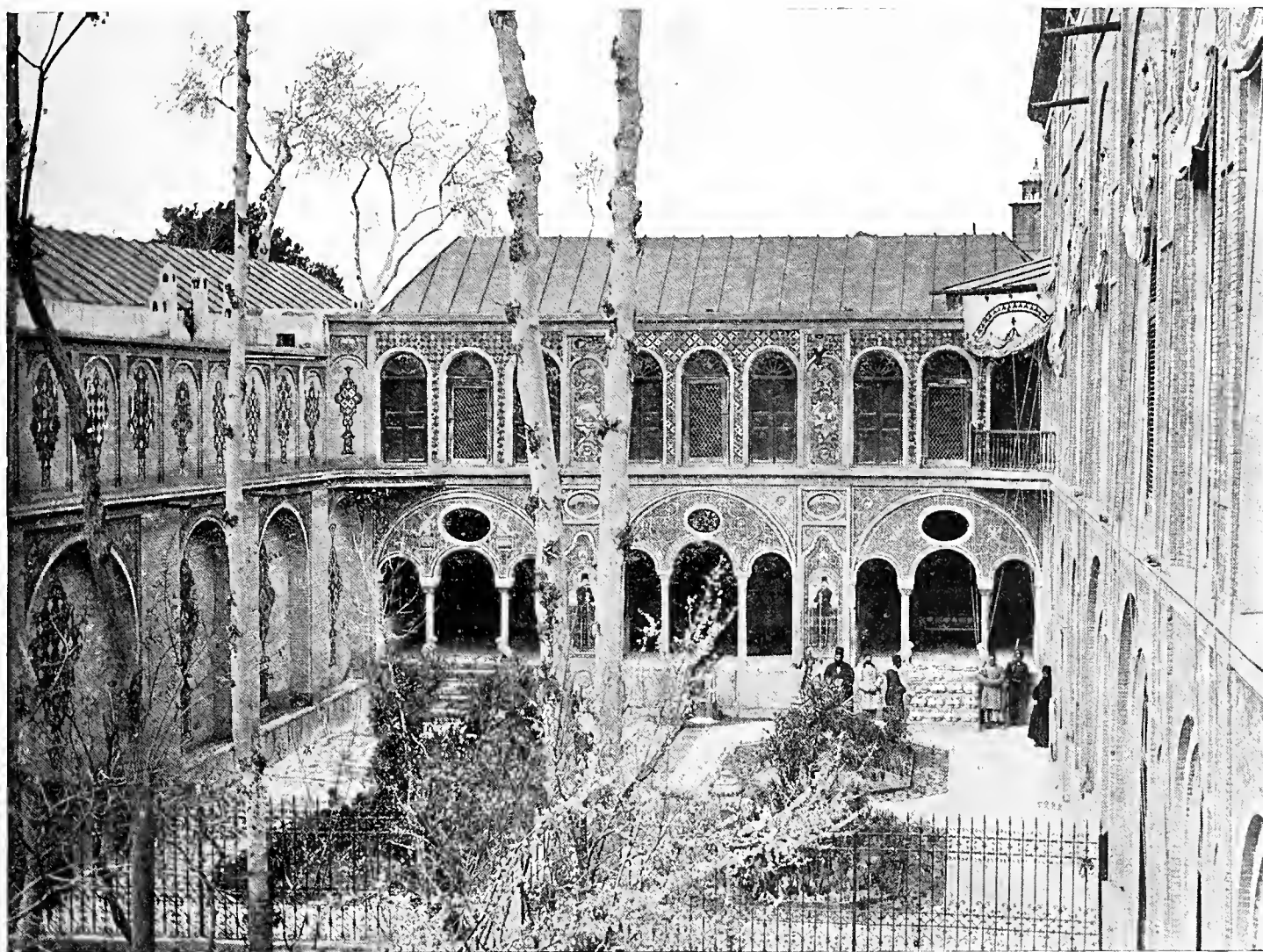


A GARDEN AVENUE OF CHENARS

fountains,—or at least water-tanks—trees, shrubbery, vines and flowers of its own, upon which no masculine eye save those of the master are permitted to look. The extent of this space is dependent wholly on the depth of the owner's purse, but in cities an individual holding is necessarily confined to a square, save in the case of palaces which are usually situated on the outskirts, and practically unlimited as to park area.



QUADRANGLE OF THE ROYAL PALACE, TEHERAN



COURTYARD OF THE ROYAL TREASURY

TEHERAN

Members of the royal family,—and they are by no means few,—ministers of state and other potentialities who rejoice in a sense of security, are prone to expend upon these gardens a liberal share of the revenues drawn from the farming of taxes, always bearing in mind that to outshine a sovereign, even by the least of glories, is to court a gracious confiscation. Tenure in Persia, whether of place or property, is uncertain at best; possession is by no means nine points of the law, as the record of ruined favorites and cabinet ministers so abundantly shows.

In cities laid out upon level sites there is decided limitation to the possibilities of a garden, even in the most extensive estates; but where hills surround the town the houses of the major dignitaries will usually be found upon the slopes, where terraces—the Persian's highest delight—may be developed, with the accompanying effects of stairs, and attendant devices of masonry. On these

hillsides, too, such as are specially accessible in the suburbs of the capital, the water problem is easier of solution; and that is, after all, next to the possession of sufficient ground, the essential requisite for a Persian garden. The photograph of a bit in the Camranieh Gardens, now the property of the Naib-es-Sultaneh—prime minister and marriage relative of the Shah—illustrates the fashion in which side-hill facilities are utilized, though the conditions apparent are eloquent of the neglect and general decadence to which reference has been made, and into which even the most pretentious of Persian establishments are permitted to lapse.

The gardens of the Zil-i-Sultan—the Shah's eldest son, but not heir to the throne, since it is the royal prerogative to nominate the successor to kingship, and the Zil, while enjoying, or not enjoying, the governorship of Ispahan has not found particular favor in the sight of his sire—will serve to show



A COURT OF THE PALACE

TEHERAN

what methods are employed to effect the necessary irrigation in flat cities. It should be said, however, that in Ispahan the natural supply of water from adjacent hills is good,

though distribution is difficult. Here, too, is manifest the happy-go-lucky condition which mars and vitiates all attempt at beautification in the realm of Iran.

One will seek in vain in the modern gardens for any impressive display of the landscape gardener's skill. The elements sought are rather great profusion, a plenitude of color and soothing masses of shadow, all of which demands are natural developments of the Persian's inherent spirit or the simple outgrowth of his surroundings. A niggard in trade, he is absurdly lavish in certain phases of self-gratification; but the art of being magnificent he has lost.

In the most pretentious gardens there is pervasive suggestion of European influence in the design and a subserviency to the rectilinear, which if not borrowed from Europe, must be attributed to the Tartar strain; it certainly is not Persian, for the Persian's natural tendency is to mazes, such as might be suggested by the winding of a vine or a creeper. The straight line is the Turkoman's delight.

Winding walks, at any rate, are rare, but here again the condition of the country may

be explanatory. The requirements of the water system, to which reference has been made, necessitate in every garden a deal of masonry. Construction of any sort is perhaps more expensive in Persia than in any other country on the globe; not because labor is expensive; that costs nothing. Materials, such as brick and the like, ought to be cheap; transportation, to be sure, costs, for the wagon has not yet superseded the beast of burden. But it is dishonesty that makes building come high. There is absolutely no possibility of having any such work done without being outrageously cheated. Therefore, when all walks must be of solid masonry, brick and tile, raised to a height of two or three feet, few persons are extravagant enough to have them built in curvilinears. So you have the cruciform garden, with no curves save the circle which encloses the water tank in the middle of the expanse. (See diagram.)

Now regarding the reason for these raised



THE BAGH-I-SHAMAL

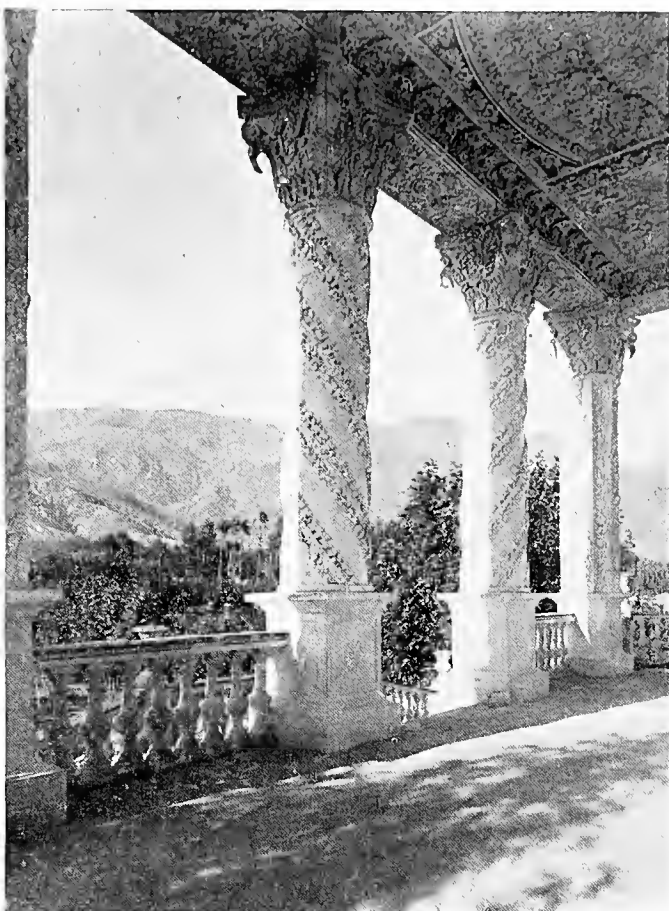
Summer Palace and Gardens of the Crown Prince at Tabriz

walks. Upon entering from the street, at the main door in the wall, you descend at once from five to fifteen steps to the brick walk surrounding the garden, which is therefore from five to fifteen feet below the street level, since a foot is a modest depth for a step in a Persian stair. This walk, extending around and across the garden, as shown in the diagram, is two feet or more above the ground proper; and out of this ground the beds, in turn, are raised, so that the flowers grow, in a way, on the summits of miniature hills. This impressed me, at first sight, as extraordinary. Turning out one morning at sunrise, for a walk before the heat set in, I learned the secret. The garden was full of dirty water, to the depth of a foot or more, and the level was rapidly rising. The flower beds, rich with the first bour-

geonings of spring, were carefully defined islets in the midst of an artificial lake extending all over the place. And this was the water supply of a Persian city. Once a fortnight, it seems, the *kanauts* or *karises* are tapped for each ward or district, and the water allowed to run in ditches along the dirty streets so dry at other times. The *mirab*,—literally, water-boss,—goes along from house to house, pulls out a plug in the foundation of the wall and lets the water flow through a conduit, running perhaps underneath the buildings, down into the garden. Pipes under the walks permit its passage from one section to another. The soil takes up a part of it, vegetation gets its periodical supply, and the residue, after a rude process of filtration, runs into the house cisterns, where it remains for use. The natives drink the stuff with comparatively small effort at purification; and why pestilence is not perennially preva-

lent, to the righteous taking-off of entire populations, passes all human understanding.

The average rainfall in Persia is small, and cannot be depended upon; but given the necessary supply of city water, and it is easy to induce plenteous growth, for the city soil needs apparently none of the persistent manuring so common to our gardens. The sites of great cities do not change. Tabriz, for example, has occupied its present location in the angle of the Sahend Mountains for certainly three thousand years. Back of that the record is misty. There is no pretence at drainage; the filth and refuse of century after century simply filter into the soil, which therefore is to the highest degree enriched. It is no uncommon sight to see, among the ruins in the environs of a Persian city, men



FROM A TEHERAN PORTICO

sifting the earth from around fallen walls, to be used as a fertilizer or to fill in about the roots of trees where it is desired to develop shade. The Russians are particularly industrious in pursuing this process in the old Persian towns which they have won by arms, such as Nahkitchevan and Erivan, in the neighborhood of Mount Ararat. I first saw it done near the tomb of Noah, on the outskirts of Nahkitchevan, and the charming park of young trees which has grown up in the center of the city is proof enough of what a comparatively little effort of this sort will, by and by, accomplish in places which Persia is now letting run to waste.

Incidentally, this sifting of earth from the ruins is lucrative, for treasure of all sorts is thus discovered and the laborer sells it for what seems to him a fabulous price. Ornaments, vessels, old coins of gold and silver, Cæsarean, Alexandrian, and others telling



ANDERUN OF THE SHAH'S PALACE, TEHERAN

Inside the Enclosure

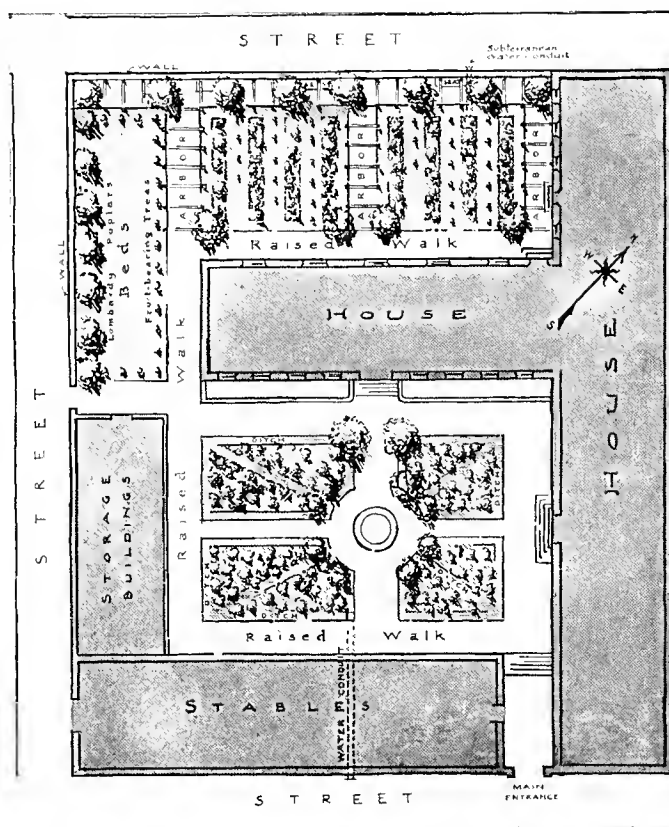


IN THE CAMRANIEH GARDENS

Property of the Naib-es-Sultaneh

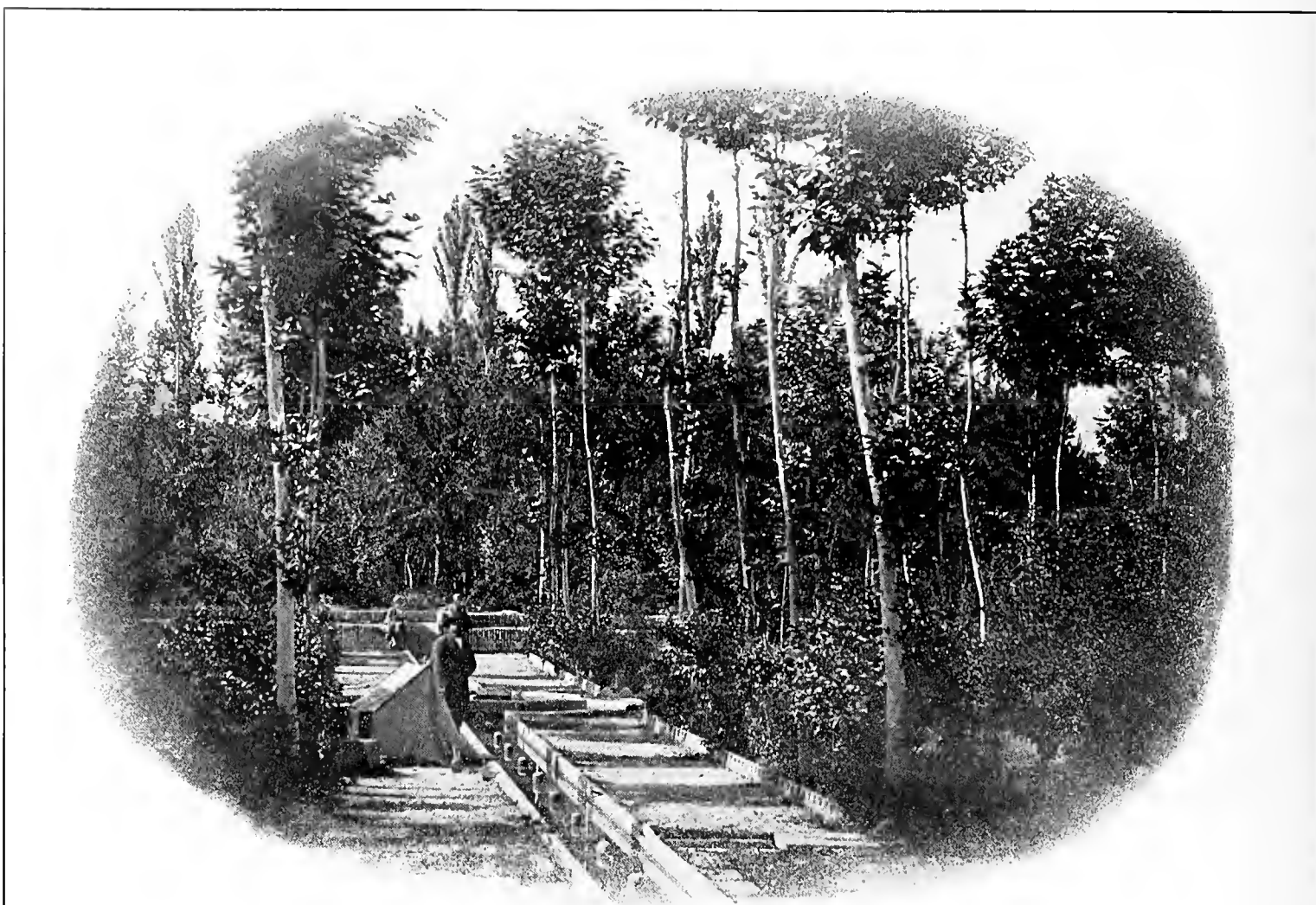
of commercial invasion by Europeans during the Middle Ages, are sold by metal-workers in the bazaars, for a little more than they are worth as old metal. In this regard, aside from its agricultural and mineral possibilities, the whole country is a mine of wealth; but for the infidel to set a spade in it would be disastrous.

Considering the paucity of water, one scarcely need look for playing fountains in any Persian garden; but in many of them there is a circular or



ARRANGEMENT OF PERSIAN CITY PREMISES

octagonal basin in the center, in which a part of the water is detained on its way to the cistern. This serves at once an ornamental and religious purpose, since water is intimately associated with the Mussulman rites. Several times a day, even in the caravansaries of the bazaar, where the torrent of trade is never still, the worshipper goes to the water font, fills his small ewer and performs the ablutions incident to prayer. In many of the humbler gardens the



GARDEN OF THE ZIL-I-SULTAN, ISPAHAN

central space is occupied by a simple shallow cylinder of cement, adorned with potted plants. Thus the suggestion of a fountain is retained, and the attendant expense avoided.

It is hard to conceive of a human, in any land, who extracts more of genuine enjoyment from such a garden as he may possess than does the intelligent Persian. The morning, up to the time when business necessitates his departure for the bazaars, and evening, after his day's wrangling and forereaching are over, find him seated in some shady spot or slowly promenading the broad walks among his flowers, sipping the tea which attendants bring him at incredibly brief intervals, inhaling the smoke of numberless cigarettes, dreaming, plotting business stratagems, but worshipping continually. He does not cull flowers. Few Persians do. They seem rather to look upon the habit as barbarous. A Persian of refinement is much more likely to have a small rug spread before

a particularly fine blossom, pass his hour in silent admiration, and then go away leaving it intact.

But for all this, there is little of horticulture in the way of grafting, or other processes looking to the development of new types. To this the Persian gardener, who is after all little more than a painstaking laborer, is not schooled. It is for this reason, probably, that the flowers to be found in a Persian garden are mainly of the simpler sort, such as chrysanthemums, asters, hollyhocks, the narcissus, hyacinth and tulip, pinks, larkspur, violets and the like. All these attain distinguished size and color. The white lily is most highly prized, but the rose is without doubt the Persian flower. Even in its decadence, Persia is a land of roses. They bloom in great prodigality and with a diversity of form and color which is little short of astounding. The Persian roses seem, though it is perhaps the effect of contrast with their surroundings, to have a



AT THE FRENCH CONSULATE

TABRIZ

quite unusual fragrance. They are amazingly vigorous and hardy, too. Aside from certain varieties of roses and the honey-suckle, flower-bearing climbers are—so far as my own observation goes—comparatively few. The grape-vine is much utilized for arbors, where shady walks or resting-places are sought,

and the grapes, which are of excellent size and flavor, keep until early spring. The Mohammedan prohibition of wine is strenuous, and in public every good Mussulman anathematizes drink, but the smallest of gardens will produce more grapes than any family can eat, and the Persian is too thrifty



A GARDEN AND GREENHOUSES

to let anything go to waste.

Fruits are abundant in every garden. Apples are not particularly good, but plums, peaches, apricots and berries of all kinds grow well, even in the north, and the Persian melon has not its equal in the world.

Of shade trees, the chenar or plane-tree, the poplar, the willow, box and elm are most frequent

in the higher latitudes. Palms increase in number as one journeys southward. There, too, is found in greater frequency the cypress, emblem of mourning, lending, with its cone of dark and unequalled green, a somber note in the midst of the garden's brightness.

John Kimberly Mumford.

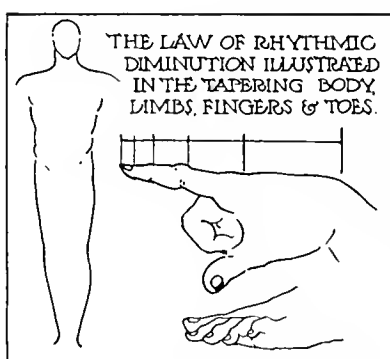
THE BODILY TEMPLE.¹

CARLYLE says, "There is but one temple in the world, and that is the body of man." If the body is, as he declares, a temple, it is not less true that a temple or any work of architectural art is a larger body which man has created for his uses, just as the individual self is housed within its stronghold of flesh and bones. Architectural beauty, like human beauty, depends upon a proper subordination of parts to a whole, a harmonious inter-relation between these parts, the

expressiveness on the part of each of its functions, and when these functions are many and diverse, their reconcilment one with another. For

this reason a study of the human figure with a view to analyzing the sources of its beauty cannot fail to be profitable to the architectural designer. Pursued intelligently, such a study will stimulate the mind to a perception of those simple yet subtle laws, according to which nature everywhere works; and it will educate the eye in the finest known school of proportion, training it to distinguish minute differences, in the same way that the hearing of good music cultivates the ear.

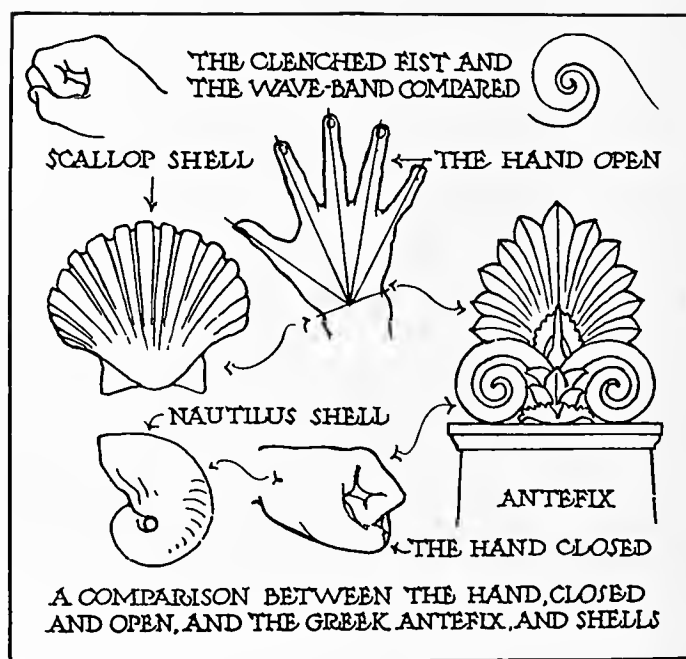
In the ideally perfect human figure, those principles of natural beauty which formed the subject of the preceding essays are all exemplified. Though essentially a unit, there is a well marked division into right and left,— "Hands to hands, and feet to feet, in one body grooms and brides." There are two arms, two legs, two ears, two eyes, and two lids to each eye: the nose has two nostrils, the mouth two lips. Moreover, the terms of such pairs are masculine and feminine with regard to each other, one being active, and the other passive. Owing to the great size and one-sided position of the liver, the right half of the body is heavier than the



left. The right arm is usually longer and more muscular than the left; the right eye is higher than its fellow. With one nostril the breath is inhaled, and with the other it is expelled. In speaking and eating the lower jaw and under lip are active and mobile with relation to the upper; in winking it is the upper eyelid which is the more active.

That "inevitable duality" which is exhibited in the form of the body characterizes its motions also. In the act of walking, for example, a forward movement is attained by means of a forward and backward movement of the thighs on the axis of the hips. This leg motion becomes twofold again below the knee, and the feet move up and down independently on the axis of the ankle. A similar progression is followed in raising the arm and hand: motion is communicated first to the larger parts, through them to the smaller, and so to the extremities, becoming more rapid and complex as it progresses, so that all free and natural movements of the limbs describe invisible lines of beauty in the air.

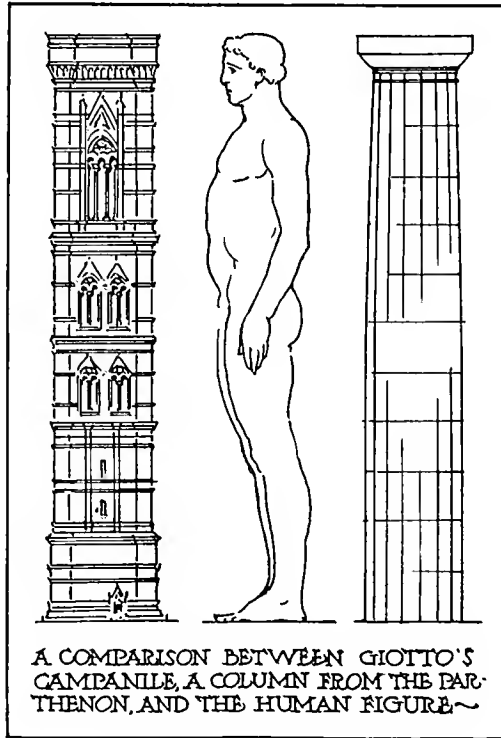
Co-existent with this pervasive duality, there is a threefold division of the figure into trunk, head, and limbs: a superior trinity of head and arms, and an inferior trinity of trunk and legs. The limbs are divided threefold into upper-arm, forearm and hand; thigh, leg, and foot. The hand flowers out into fingers and the foot into toes, each with a threefold articulation; and in this way is effected that transition from unity to



¹ The fourth of Mr. Bragdon's series of articles entitled:—"The Beautiful Necessity: being Essays upon Architectural Esthetics," begun in the January number of *HOUSE AND GARDEN*.

multiplicity, from simplicity to complexity which so appears to be universal throughout nature, and of which a tree is the perfect symbol.

The body is rich in those veiled repetitions, echoes, consonances—or whatever they may be called—which are observed elsewhere in nature and in art. The head and arms are in a sense a refinement upon the trunk and legs, there being a clearly traceable correspondence between their various parts. To the trunk are attached four limbs and a head, and to the palm, four fingers and a thumb. Each finger is a little arm and each finger-tip a little palm; the lips are the lids of the mouth, the lids are the lips of the eyes,—and so on.



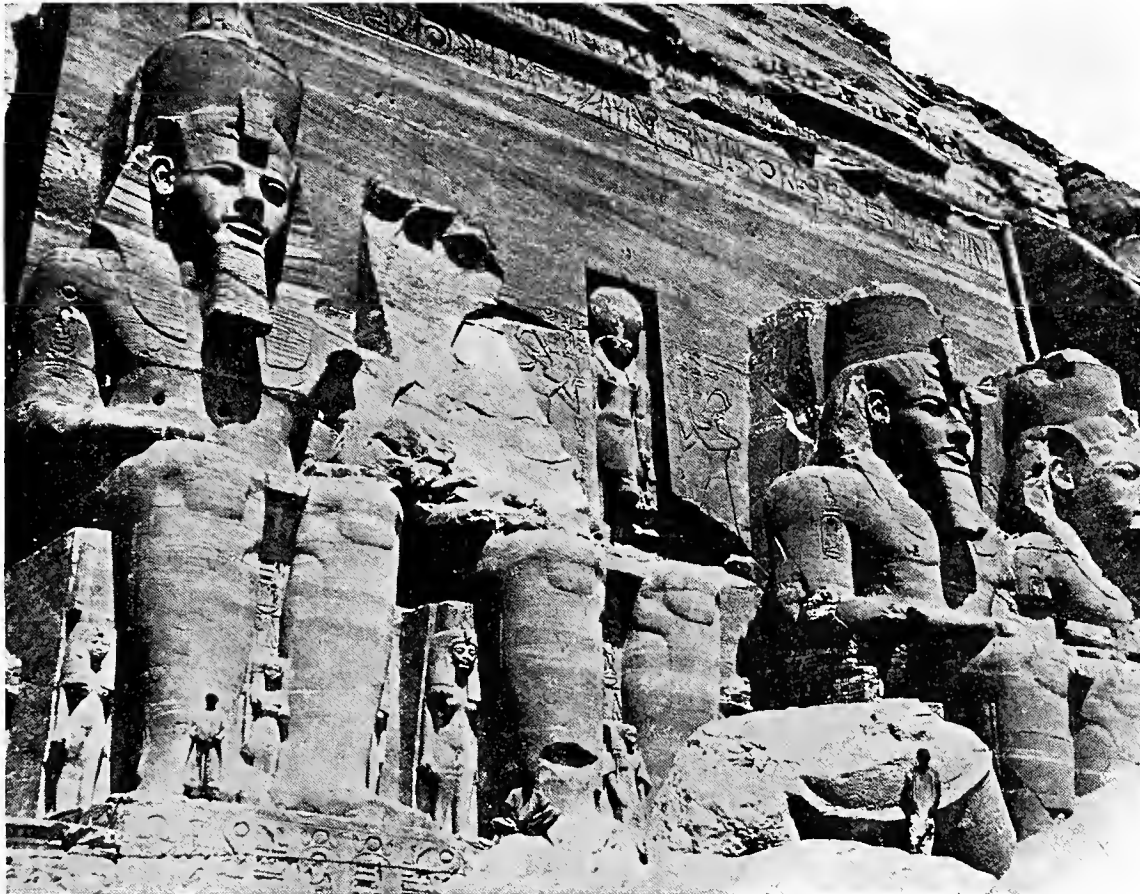
A COMPARISON BETWEEN GIOTTO'S CAMPANILE, A COLUMN FROM THE PAR-
THENON, AND THE HUMAN FIGURE~

The law of rhythmic diminution is illustrated in the tapering of the entire body and of the limbs, in the graduated sizes and lengths of the fingers and the toes, and in the successively decreasing lengths of the palm and of the joints of the fingers, so that in closing the hand the fingers describe natural spirals.

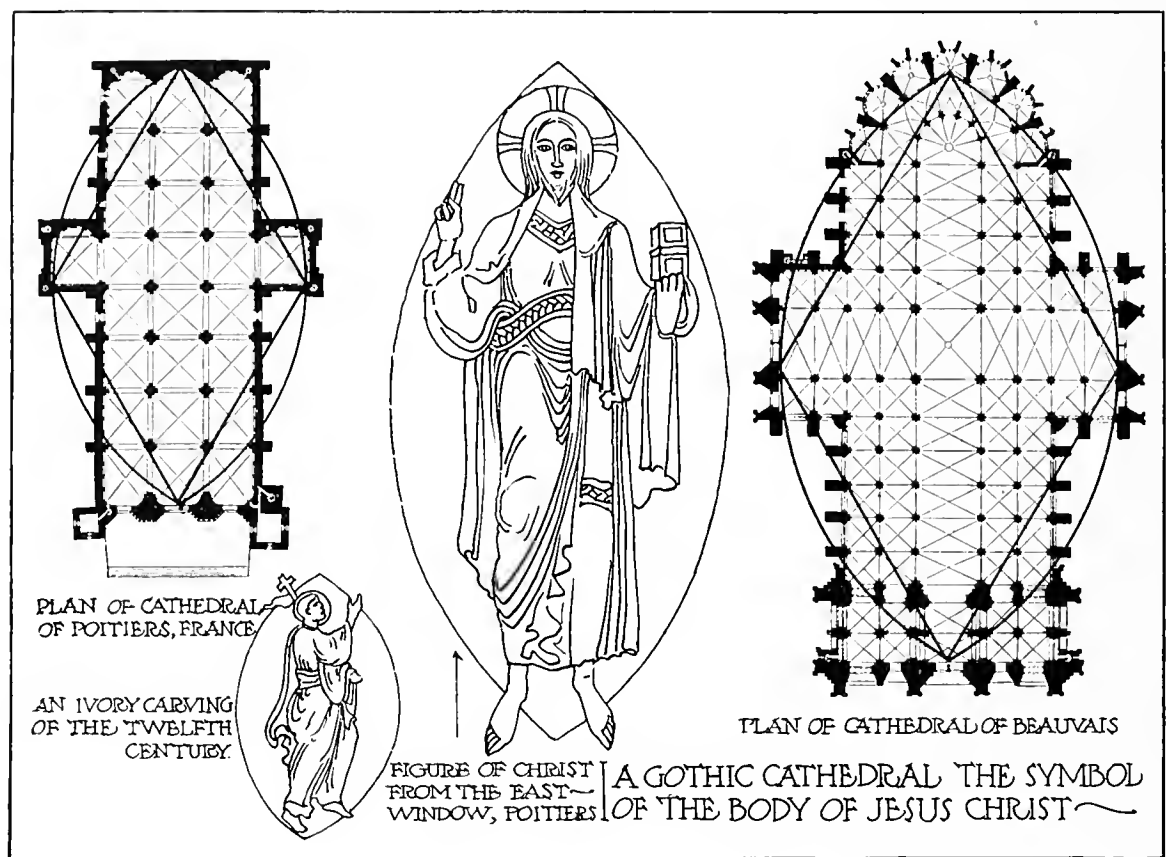
The relation between these laws of beauty and the art of architecture has been sufficiently dwelt upon in preceding essays. They are mentioned again in this connection only for the purpose of reminding the reader that man is indeed

the microcosm,—a little world fashioned from the same elements and by the same laws as is the great world in which he dwells.

There are few more profitable exercises



THE EGYPTIAN TEMPLE OF ABU-SIMBEL



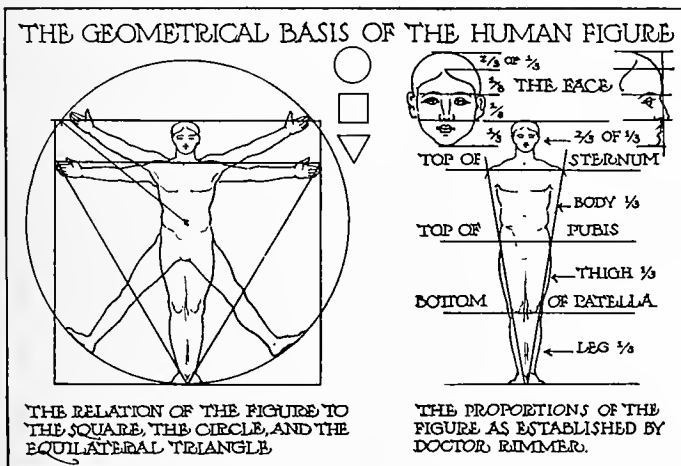
for the architectural designer than that of seeking to discover essential identity between things apparently unrelated,—between a work of architecture and the body of man, for example. The manner in which the tower of a Gothic cathedral ascends from its simple and strong base to terminate in a spire of delicate tracery is not unlike that in which the arm grows from shoulder to finger-tips. The towers and turrets of many a French château are attached to it in the same organic way that the head and limbs join the trunk. There are campaniles in walled Italian towns which seem to stand, like sentinels, looking out on mountain and campagna; nor is their strangely human aspect wholly imaginary. Giotto's matchless tower, for example, conforms very closely to the proportions of the figure. A Doric column, also, is reminiscent of a man, for the excellent reason that the ratio between mass and height are much the same in both.

Such correspondences, though scarcely accidental, were, on the other hand, not pre-meditated. At certain periods of the world's

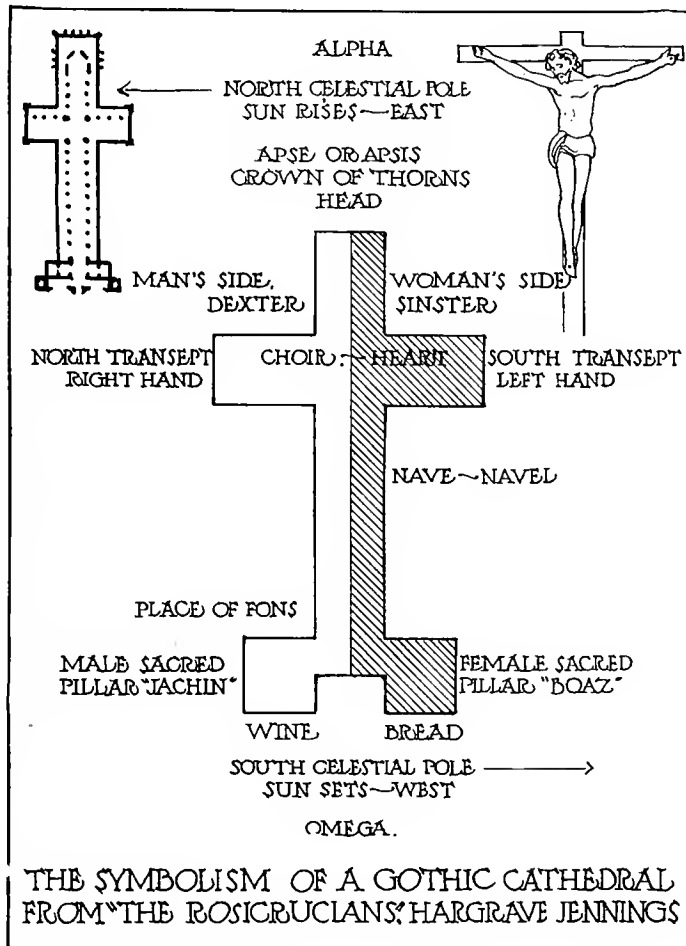
history, however,—periods of mystical enlightenment, when the soul was near the surface of life,—men have been wont to use the human figure, the soul's temple, as a sort of archetype for sacred edifices. The colossi, with calm, implacable faces, which flank the entrance to Egyptian temples; the great bronze Buddha of Japan, with its dreaming eyes; the little-known colossal figures of India,—all these belong hardly less to the domain of architecture than to sculpture. In France, during the mystic centuries of the Middle Ages, a Gothic cathedral became, at the hands of the secret masonic guilds, a glorified symbol of the body of man,—the crucified body of Christ. To practical minded students of architectural history, familiar with the slow evolution of a Gothic cathedral from a Roman basilica, such an idea may seem to be only the maunderings of a mystical imagination, entitled to no more consideration than the familiar fallacy that the vaulted interior of a Gothic church was an attempt to imitate the green aisles of a forest. It should be remembered,

however, that the habit of the thought of that time was mystical, as that of our own age is utilitarian and scientific, and the chosen language of mysticism is always an elaborate and involved symbolism. What could be more natural than that a building dedicated to the worship of a crucified Savior should be a symbol, not of the cross only, but of the body crucified? The *vesica piscis*, which in many cases determined the main proportion of a cathedral (the interior length and the width across the transepts) appears as an aureole around the figure of Christ in early representations of him, a fact which points to a relation between the two. A curious little book, "The Rosicrucians," by Hargrave Jennings, contains an interesting diagram which well illustrates this conception of the symbolism of a cathedral. A copy of it is here given. The apse is seen to correspond to the head of Christ, the north transept to the right hand, the south transept to the left hand, the nave to the trunk, and the north and south towers to the right and left feet respectively.

The cathedral builders excelled all others



in the artfulness with which they established and maintained a relation between their architecture and the stature of a man. This is perhaps one reason why the Gothic churches are more impressive than the great Renaissance structures built at a later period, such as St. Peter's in Rome, for example. A gigantic order furnishes no true measure for the eye; its vastness is revealed only by the accident of some human presence which forms a basis of comparison. That architecture is not necessarily the most noble which gives the impression of having been



built by giants for the abode of pigmies. Like the other arts, architecture is highest when it is most human. The medieval builders, true to this dictum, employed stones of a size proportionate to the strength of a man working without unusual mechanical aids. The great piers and columns, built up of many such stones, were subdivided into clusters, and the circumference of each shaft of such a cluster usually approximated the girth of a man. By this device the mouldings of the bases and the foliation of the caps were easily kept in scale. Wherever a balustrade occurred it was proportioned, not with relation to the height of the column below, as in classic architecture, but with relation to a man's stature.

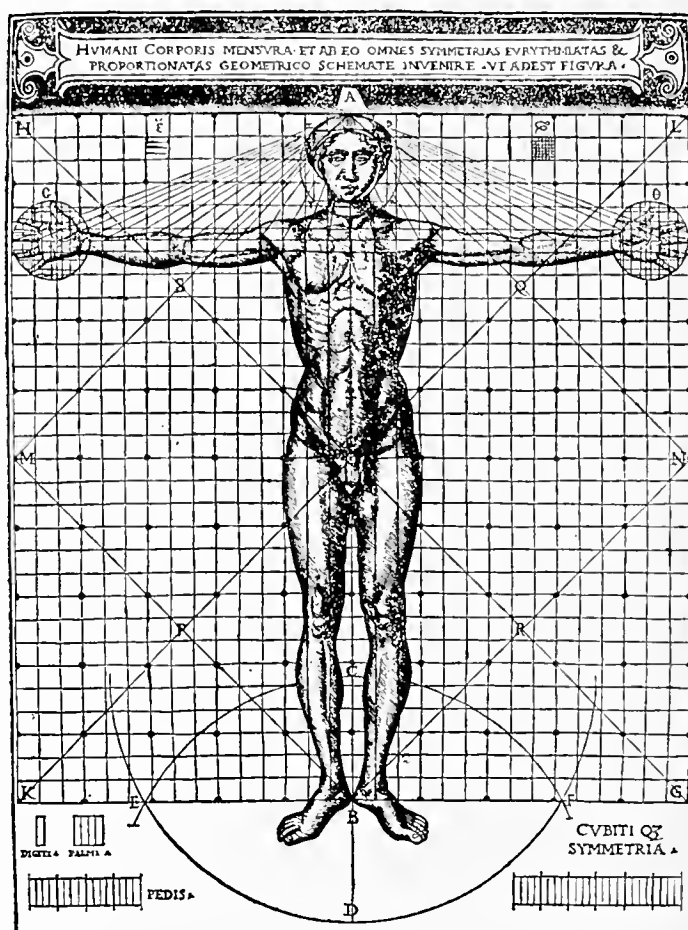
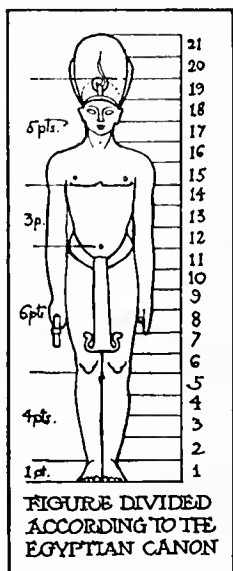
It may be stated as a general rule that every work of architecture should have somewhere about it something fixed and enduring to relate it to the human figure, if it be only a flight of steps in which each one is the measure of a stride. In the Farnese, the Riccardi, the Strozzi and many another Italian palace, the stone seat about the base gives scale to the building because the beholder knows instinctively that the

height of such a seat must correspond very nearly with the length of a man's leg. In the Pitti palace the balustrade which crowns each story answers a similar purpose: it stands in no intimate relation to the gigantic arches below, but is of a height convenient for lounging elbows. The door to Giotto's campanile reveals the true size of the tower as nothing else could, because it is so evidently related to the human figure, and not to the great windows higher up in the shaft.

The geometrical plane figures which play the most important part in determining architectural proportion are the square, the circle, and the equilateral triangle; and the human figure is intimately related to these elementary forms. If a man stand with heels together and hands outstretched horizontally in opposite directions he will be inscribed within a square, and his arms will mark, with fair accuracy, the base of an inverted equilateral triangle the apex of which will touch the ground at his feet. If the arms be extended upward, and the legs separated, the extremities will touch the circumference of a circle having its center in the navel.

The figure has been variously analyzed with a view to establishing numerical ratios between its parts. Some of these are so simple and easily remembered that they have obtained a certain popular currency, such as the length of the hand equaling that of the face, the span of the horizontally extended arms equaling the height of the figure, and the well-known rule that twice around the wrist is once around the neck, and twice around the neck is once around the waist. The Roman architect Vitruvius, writing in the age of Augustus Cæsar, formulated the important proportions of the statues of classical antiquity; and except that he makes the head smaller than normal (as it is and should be in heroic statuary), the ratios which he gives are those to which the ideally perfect male figure should conform.

Doctor Rimmer divides the figure into four parts, three of which are equal, and corre-



spond to the lengths of the leg, the thigh, and the trunk; while the fourth, which is two-thirds of one of these thirds, extends from the sternum to the crown of the head. One excellence of such a division, aside from its simplicity, consists in the fact that it is equally applicable to the face. The lowest of the three equal divisions extends from the tip of the chin to the base of the nose, the next coincides with the height of the nose, (its top being level with the eyebrows), the last with the height of the forehead; while the remaining two-thirds of one of these thirds represents the horizontal projection from the beginning of the hair on the forehead to the crown of the head.

The relation of all these facts to architecture is of the same nature as that of the facts pertaining to musical harmony, discussed in a previous essay. By means of this sort of analysis we approach nearer to an understanding of that great mystery: the beauty and significance of numbers, of which mystery music, architecture, and the human figure, in certain of their aspects, are equally presentments.

Claude Bragdon.



THE GARDEN FROM THE PIAZZA



FRONT VIEWS OF THE HOUSE

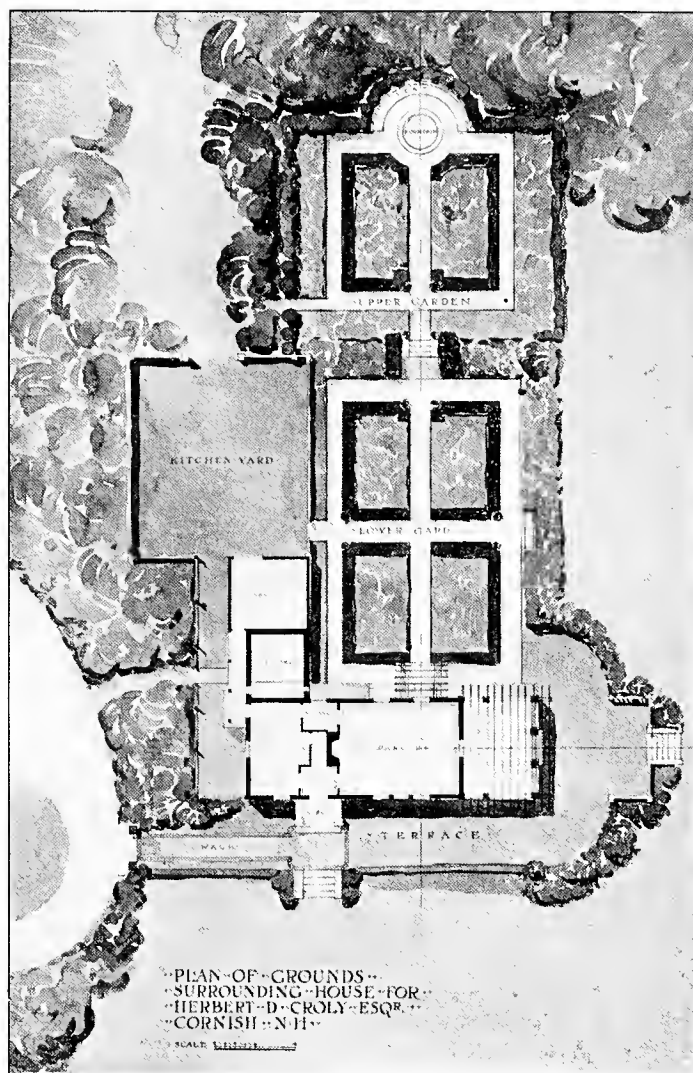
A SMALL NEW HAMPSHIRE GARDEN.

THE country place of Mr. Herbert Croly is situated in western New Hampshire, about ten miles north of Claremont, and not far from the Connecticut River. It is cut off from the river valley by the first of several low lines of hills that run north and south, and the landscape to which it belongs has only a suggestion of the broad publicity of the valley itself. The immediate site of the house is a small plateau in an amphitheatre of low hills. Toward the north, these hills come down close to the house; toward the east and south, the rise begins gradually some half a mile away; while to the west and south-west, there is a break in the enclosure which affords a full view of Mount Ascutney about ten miles distant, and a glimpse of the valley itself. Thus the location of the house is sheltered without being shut

in, private, but well connected with the main-traveled roads.

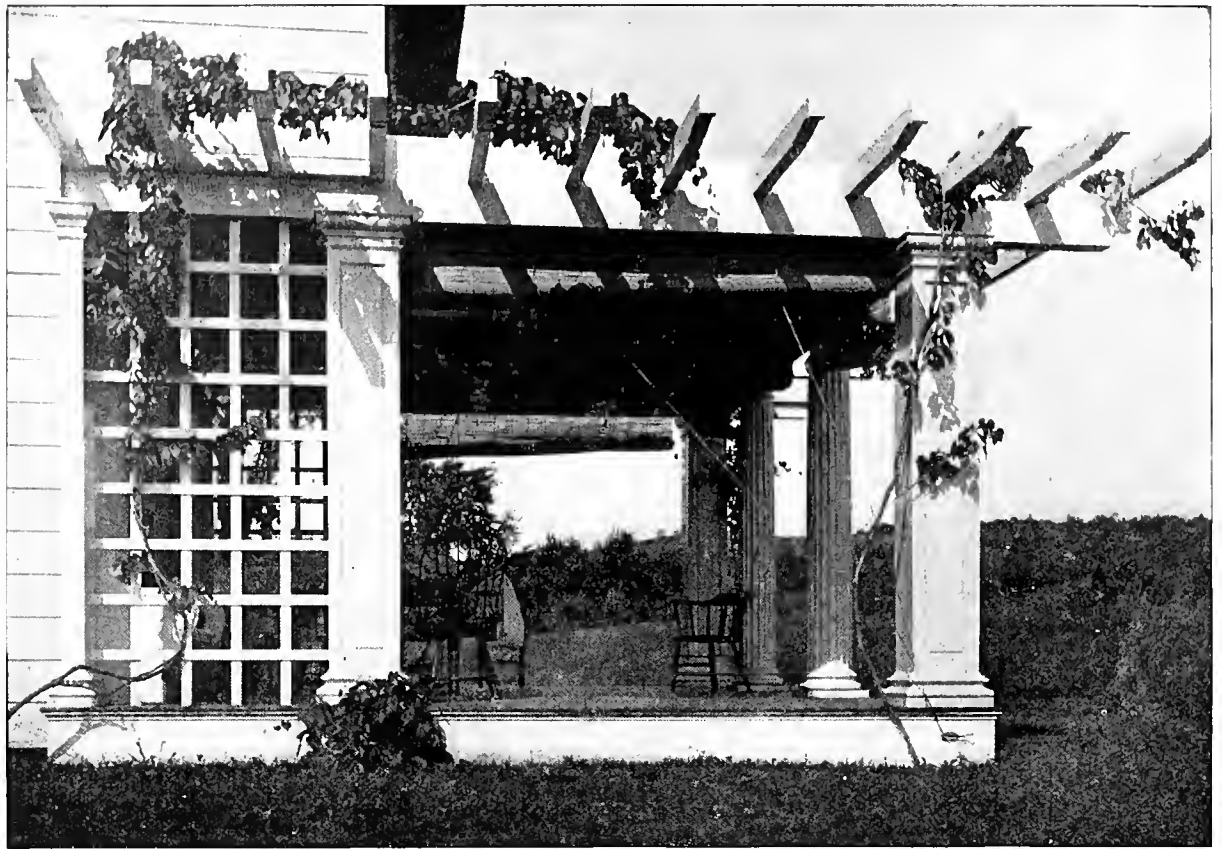
The plateau on which the house is built is surrounded by a pasture, of which it once formed a part, and the grounds are reached by means of a private road with gates at both ends. It is only the land in the immediate vicinity of the house which

has been planted and cultivated; all the rest is as unkempt as the original pasture. As may be seen from the plan, the driveway approaches the house from the north. None of the illustrations give the appearance of the house as one approaches by the road, but some idea of it may be obtained partly from the plan, and partly from the picture which shows the front door and the terrace. The kitchen entrance is situated on the short side of the house, as seen in this illustration, and is screened by a lattice, overgrown with clematis and woodbine, and by masses



THE PLAN

A Small New Hampshire Garden



AN EARLY VIEW OF THE PIAZZA



Photographed September, 1901

A RECENT VIEW OF THE PIAZZA



THE GARDEN AND THE HOUSE

of syringas, lilacs, barberry and other hardy shrubs.

The walk along the terrace to the front door of the house is marked by two brick posts, and is paved with brick. The planting on this side consists merely of clumps of shrubbery near the posts, a row of *rosa rugosa* running along the base of the terrace, and some climbing roses immediately against the house. The house itself is very small, including only, on the ground floor, a kitchen to the left of the front door, and one large living-room to the right. The piazza is situated at the end of the house away from the road, and is partly covered by a projection of the floor above. An attempt has been made to treat it structurally as an integral part of the design of the house. The structural relation of the piazza to the

house can be best appreciated in the picture which is taken from a point below the house and at the opposite end of the grounds. It will be noticed that the foliage of the wild grapes growing over and about the piazza is much more abundant in some illustrations than it is in others, and the difference is to be accounted for by three years additional growth.

So far in our journey around the house we have not caught sight of the garden at all; but as we walk around the end of the piazza we obtain a preliminary glimpse of it, with the hills to the north in the background. By referring to the plan it will be noticed that the garden is situated, not merely near the house, but immediately next to it. The house and the kitchen-yard almost enclose it on two sides, and one can step down out of

the living-room of the house right into the main path of the garden. One of the illustrations shows its appearance from the piazza. The narrow bed to the right is planted with a row of spirea Thunbergi in front and with forsythia and Japanese honeysuckle behind. The low hedge, which outlines the two beds to the left, is

plan. There is a small porch at this door, protected by a wooden structure, overgrown with wild grapes. Peonies are planted along the whole length of both sides of the path, and back of the peonies masses of larkspur, neither of which are in bloom at the period of the year in which the illustrations were taken. At the end of the beds are wild



ACROSS THE GARDEN

composed of Japanese barberry. The picture illustrates the garden as it appears during the first week in September, and the flowers in bloom are a mass of tall white phlox, in the first bed, and of boltonia in the second. The hedge at the back of the picture consists of carefully trimmed spirea van Houten.

A more central view of the garden can, however, be obtained by entering the living-room from the piazza and coming out by the door, which leads to the main axis of the

perennial asters, which are just beginning to flower. The upper garden which is reached by the white steps in the rear is eighteen inches higher than the lower garden. The white flowers which indistinctly appear in the upper garden are hydrangeas; but the beds at that end are, for the most part, planted with annuals and with some few hardy roses. These beds are very large, measuring 14 x 25 feet each and requiring great masses of foliage and flowers to fill them.



THE GARDEN FROM THE LIVING-ROOM DOOR

A better idea of the foliage can be obtained by examining the picture which looks diagonally across the garden towards the piazza, and shows the small covered porch leading into and out from the living-rooms of the house. The small flowers to the right are boltonia, while the mass of green in the center is of marigolds, which were planted after the larkspur was cut down, and which have only just begun to bloom. Another illustration is taken from the embankment, and looks diagonally across the garden in an opposite direction. The white wall which frames the garden in to the left is made of wooden laths and will eventually be covered by the green vines—clematis, bitter-sweet and actinidia,—which as yet have not reached a sufficient growth for the purpose. Earlier in the season, there is a row of hollyhocks along the whole length of this side of the garden. This picture gives a good idea of the background which the garden possesses in the way of elm and pine trees.

In justice to Mr. Charles A. Platt, the designer both of the house and the garden, it should be added that work is still in an unfinished condition. The plan calls for a much more complete enclosure than any which now exists. It is proposed to continue the wall on the left to the end of the garden; to cut down the embankment; to frame the garden in on that side with a low parapet, backed by shrubbery, and to erect, at the end of the main axis, a pergola or some similar structure, which will supply that end of the garden with an architectural motive. The house and garden is, however, a very good example of what can be done at a comparatively small expense in the way of building up a complete country place—a country place, that is, which is not only good to look at and pleasant to live in, but which requires for its maintenance persistent attention and hard but remunerative work.

H. D. C.



LOOKING DOWN THE MAIN PATH

THE ORNAMENTAL MOVEMENT OF WATER IN CITY STREETS.¹—II.

THREE factors chiefly determine the design of a public fountain in a city street or square. These are the amount of money to be spent; the space, its character, extent and surroundings; and the water, the quantity obtainable and the function selected for it, whether purely decorative or also useful. Cost varies with locality, material and the personal equations of architects and civic committees, so it need not be discussed here in detail. Yet it may be of interest to

francs, 72 centimes. If the sum appear modest, let the reader remember that money was worth more in exchange in 1828, when Charles X. was reigning, than it is to-day. Much more expensive were Visconti's other Paris fountains. That of Louvois cost 115,286 francs. For the Fontaine Molière, (1844), with two stories and attic in Visconti's suave Bourbon manner, the expenditure was 195,000 francs, which was topped by the 250,518 francs and 50 centimes paid for that of St. Sulpice.

If the appropriation for a street fountain be large, the architect will have difficulty,



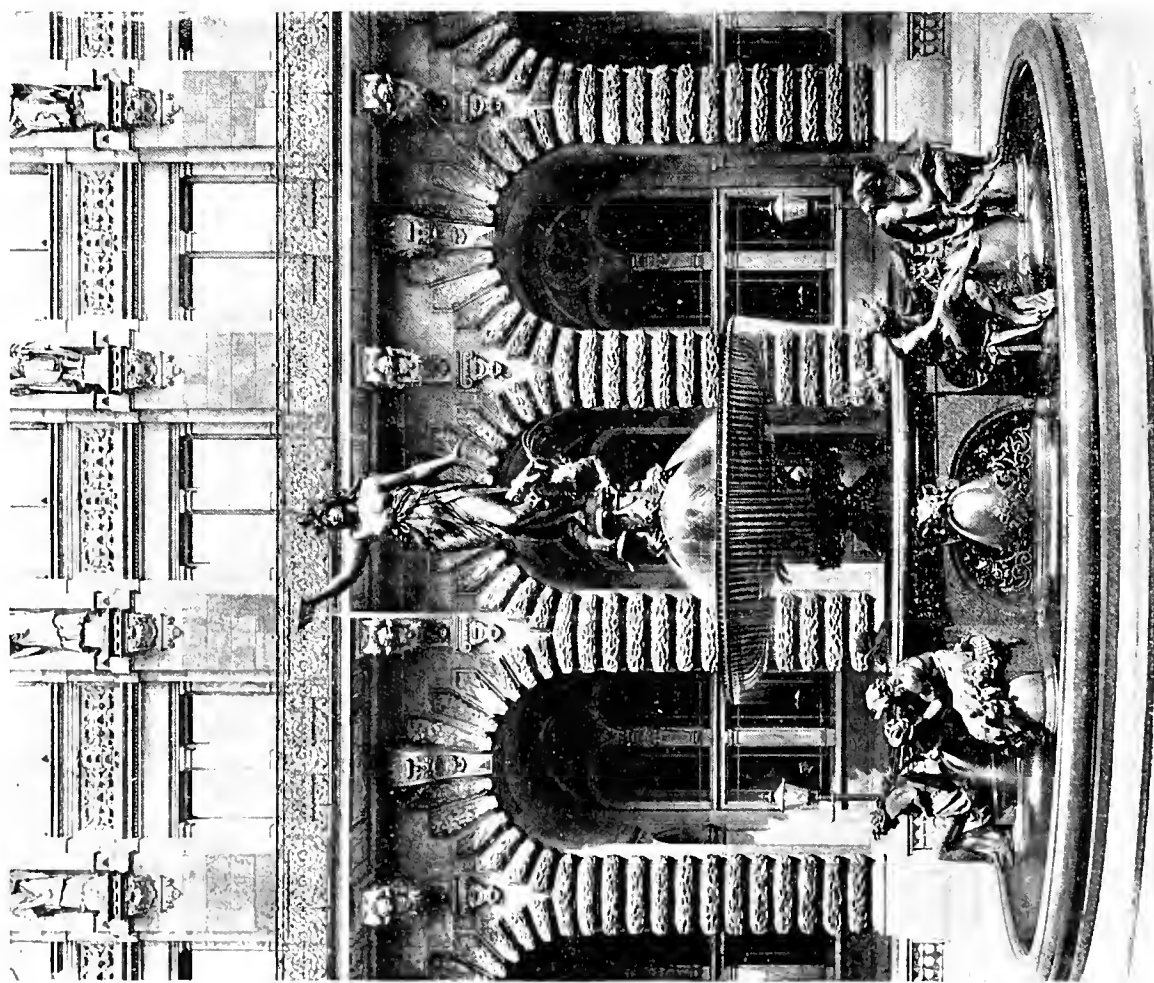
THE FONTE GAIA AT SIENNA

By Jacopo della Quercia. Restored in 1868.

quote the pedantically exact figures triumphantly included by the amiable Ludovic Visconti in his folio volume depicting fountains erected by him in Paris, nearly three generations ago. His Fontaine Gaillon, a high Renaissance portal, its attic surmounted by urns, with its water issuing from a dolphin's mouth, in a niche between Corinthian columns, its child and trident, and its two basins, cost precisely 32,786

perhaps, in preserving simplicity of effect, and in keeping to a moderate scale of size. Each is desirable, under the ordinary conditions of city streets, though each has been ignored by foreign designers with occasional success and frequent failure. The American architect will also do well to scan sharply the projects of ambitious sculptors for his fountain's adornment, for there are few

¹ Begun in the April number of HOUSE AND GARDEN.



THE RATHHAUS FOUNTAIN

HAMBURG



THE ANSPACH MONUMENT

BRUSSELS

workers in clay and stone and bronze that can not only copy but create. High or low relief is often safer and also less expensive than sculpture in the round. Low relief is especially suited to wall fountains, as the Sienna basin of Jacopo della Quercia, shown herewith, abundantly testifies. It was suggested in a previous paper that wall fountains are particularly adapted to the crowded streets of American cities; and though della Quercia has no lineal descendant, among this country's decorative sculptors, there are some to whom the theme of a walled basin or pool, with surfaces waiting for the chisel, would be an inspiration.

Upon the character, extent and surroundings of the available space should depend intimately the design of a street fountain. If the center of an open square be chosen,



IN THE NEUEN MARKT

DONNER

the plan should be circular or polygonal, so that the water, at least in its essential movement, may be visible from all sides. This condition, fulfilled ideally in the fountain of the Neuen Markt at Donner (see illustration) gives vitality to a design otherwise scattering and commonplace. The large stone basin, though raised by three shallow steps from the surrounding pavement, is still low enough not to shut out the water's beauty from the casual passer-by. The Anspach Monument in the Place de Brouckère, Brussels, the fountain before the Hamburg Rathhaus and that in the Hohen Markt, Vienna, are all successful in this respect, especially the former two. Not so the Joan of Arc Monument in the Place de la Pucelle, Rouen, which is really more a commemorative structure, with incidental facilities for distributing water, than a fountain. It was a clever Frenchman who expressed his doubts as to the artistic propriety of placing a water composition about the feet of persons one wished to honor. The drinking fountain to Robert Louis Stevenson, in San Francisco, shown in the April "HOUSE AND GARDEN," was of the same category.

If the space chosen for the fountain be the corner formed by two walls, as in the Albrecht structure in Vienna, the water should be made visible through as wide an angle as possible. The Fonte Gaia in Sienna, with its flanking walls on three sides, is meant to be viewed only from directly in



THE MARIENSÄULE

VIENNA

front. If the space selected for the ornamental treatment of water be at the head of a great avenue, as at the Palais Longchamp, Marseilles, the monumental château d'eau is in order.

The demands of traffic tend nowadays, especially in German cities, to keep down the number of fountains in public roadways. The Vienna fountain in the Hohen Markt is a serious obstacle to wagons, while that at Donner takes up valuable space. It is only in a large plaza, like that of Brussels, that street traffic and a big



THE JOAN OF ARC MONUMENT

ROUEN

fountain do not interfere with each other. In Limoges, several Gothic and eighteenth century fountains, which clogged passages, have been cast out in spite of protests; where massive stone pillars stood, there are now but cast-iron stand pipes, with blind or

flush orifices for needed water.

The surroundings of a space chosen for a street fountain must of course influence the architectural treatment. The Brussels monument, reflecting both the Gothic and the Renaissance styles predominating in the



LEPALAIS LONGCHAMP

MARSEILLES



THE ALBRECHT FOUNTAIN

VIENNA

steep roofed building behind it, may be pronounced judicious, though the shaft itself wants impressiveness and has a certain touch of Belgian grossness. The thick, powerful columns of water are not economical, but they count in the architectural scheme, even at a considerable distance. Both the Vienna fountains shown bear perceptible relation to their surroundings. The wall structure is an integral part of a symmetrical scheme, while the Renaissance portico in the Hohen Markt, with its bizarre cockade, and its repeated capitals, needs just such sharp and incisive treatment if it is to hold its own against the heavy cornices and mouldings of neighboring buildings.

For nice adjustment of a street fountain to natural and artificial setting, the Pferdeschwemme at Salzburg may be studied. This Austrian city, Mozart's birthplace, "nestles under the cliffs of the Monchsberg in the valley of the River Salzach, hugging the sheer rock so closely that it actually overhangs the houses in one of the streets. Where the valley widens toward Hohen-salzburg, crowned by the castle fortress, it

opens out into squares, each with its fountain or statue, that afford approaches to the few large structures of the city." In this quiet town of few cross streets and limited vistas, the basin of the Pferdeschwemme, with its broad low balustrade, and the substantial wall behind it, might easily be said to reflect the comfortable short-viewed life of the place. The familiar Schöne Brunnen of Nuremberg, slenderly Gothic as any of its neighbors, is another fountain admirably in harmony with its surroundings. So was the handsome fountain of the early French Renaissance that used to exist at Autun.

The third important factor in fountain design, to which, of course, the preceding conditions must be adjusted, is the water itself, its amount and pressure, and the use selected for it. Shall the fountain be purely decorative, or shall it also be available for drinkers? Up to recent times, the answer would rarely have been in doubt; the fountain was once the sole source of supply to a community and often enough the center of village or neighborhood life. To trace the growth of the decorative factors out of those at



AT FREIBURG

SWITZERLAND

first purely utilitarian would be a pleasant task, but it must not be attempted in detail here. Suffice it, that the early Greek fountains seem to have been merely reservoirs whence water flowed through orifices into a basin; sometimes a second basin was added, for washing. In the early Middle Ages fountains were primarily composed of three basins, arranged in longitudinal series, overflowing one into the next, for water supply, washing and horses, respectively. Next came a compact design in three levels, with central stand-pipe, carrying four

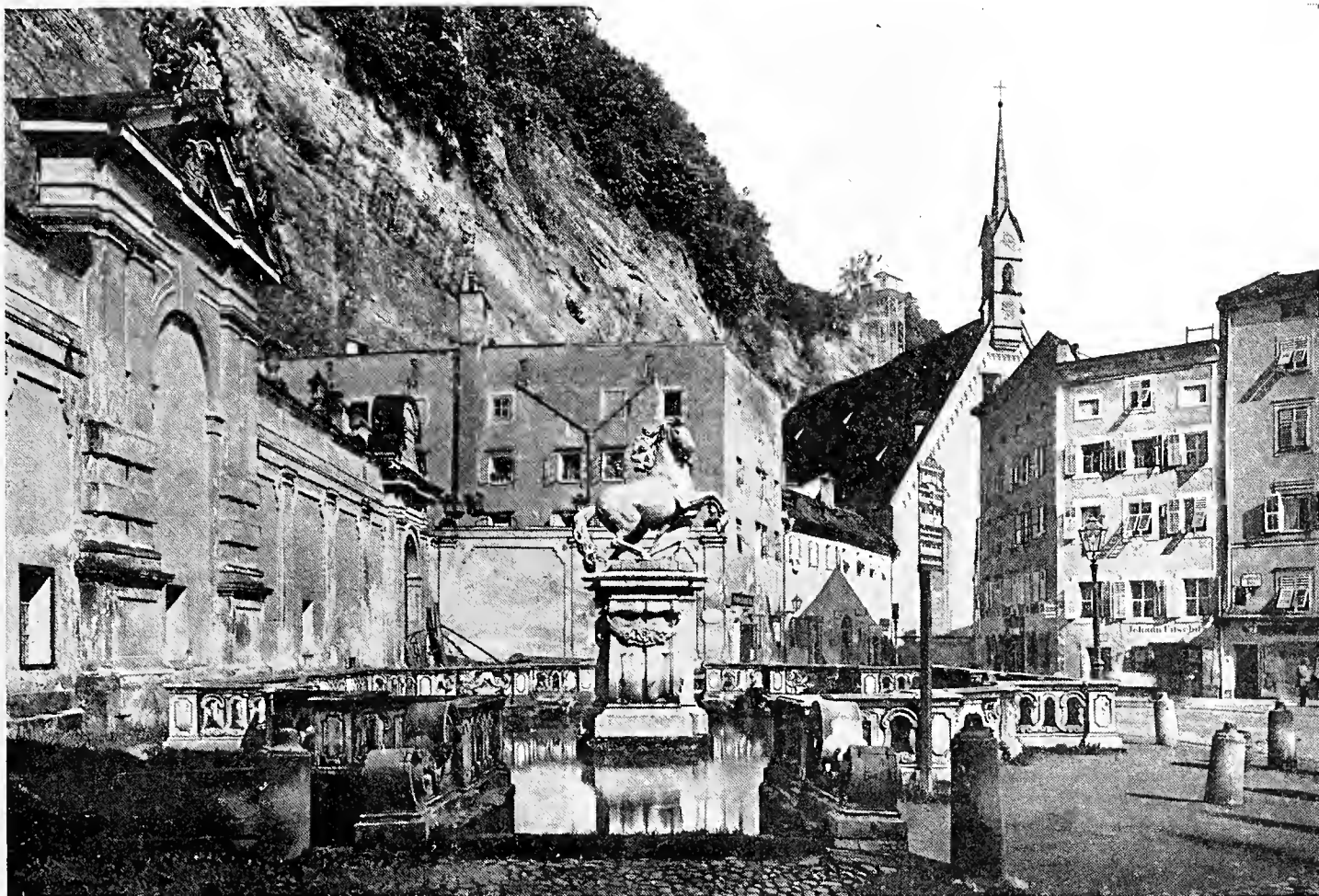


AT BÜREN, SWITZERLAND

arms, touching alternate edges of an octagon basin, which were reached by four flights of steps. A large circumscribing square contained four basins on the second level, for washing clothes, and an outer square had at its corners, horse-troughs. The central pipe took on ornamentation, and the orifices were supplied with carved or cast heads, through whose mouths poured streams of water. This type was developed, the upper basin was lifted off the ground, and the water and the stone were found to possess limitless decorative

possibilities. An interesting stage of this development may be studied in the fountain at Freiburg, Switzerland. Here are the three basins, the two inferior ones connected with the central structure merely by tubes. It was not until after the sixteenth century that metal piping was introduced in any except costly fountains. This meant that water under pressure was rarely used; that upright jets were not often available. The Romans, though they knew of the law that water, confined in a tight tube, seeks its own

wind may blow the water outside the rim. By sinking the basin and surrounding it with low flowers or grass, to catch the drops, the limit may be slightly decreased. But a jet of this sort, while highly effective in parks or pools, is rarely convenient in a street fountain. It was soon found that the maximum effect of the water was obtained by sub-dividing the fall, and spreading the fluid out in thin layers, so as to get the value of every drop. Extra basins, over whose edges drip filmy water, are effective if not used too



THE PFERDESCHWEMME

AT SALZBURG

level, applied the principle scarcely at all to fountains. When some bold experimenters carried water under pressure two kilometres in a stone conduit for a fountain at the Place Clautre, Périgueux, in 1533, it was regarded as a remarkable achievement.

With this simple, though hard-won, vertical jet of water at his disposal, the modern architect may figure easily the size of his basin,—that is if he intends to use the full head. The radius of the basin must be a little more than the height of the jet, else the

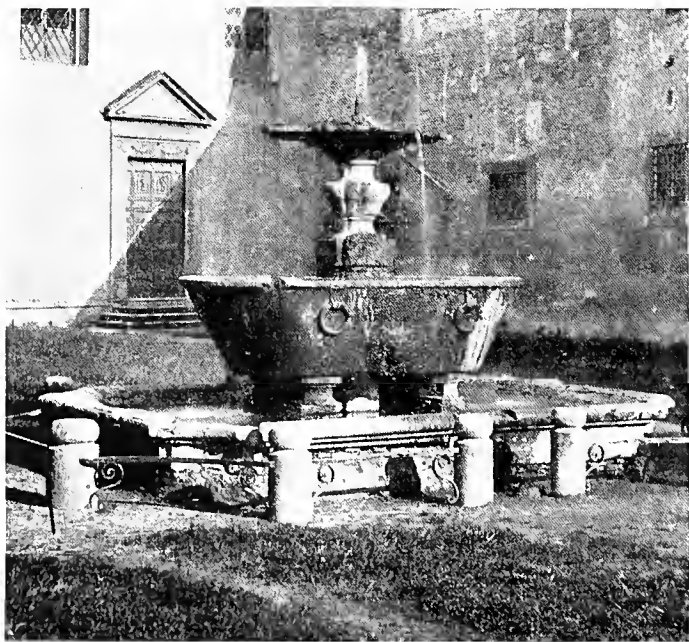
often in one design. Incidentally the architect must see that the edge of every basin be true and level, else the result will be that seen in the little fountain of S. Cosimato in Rome, the sheet having concentrated itself into a single stream. These sheets of water are used importantly in the Trocadero fountain, Paris, and in numerous other large and small designs. One of their merits is their evaporation into the air of a perceptible amount of liquid.

In the Brussels design, it will be seen that



AN ARRANGEMENT OF THE CHAMP DE MARS

Seen from the Eiffel Tower



FOUNTAIN OF S. COSIMATO

ROME

the large streams, as well as falling from a height, are projected nearly horizontally, giving them as long a flight through the air as possible. In the Schlossplatz fountain, Berlin, four large jets send their waters from a low level into an upper basin, thus utilizing them in both directions. A more refined

application of the same principle is seen in the fountain of Jacques d'Amboise, at Clermont, France. The Place de la Concorde fountains have jets playing almost horizontally upon the central figures. A less honest, though sometimes legitimate device, was used successfully last summer at the Pan-American Exposition to secure the full value of the water sent through the *château d'eau*. The various surfaces over which the water flowed were colored a delicate blue-green, reinforcing and magnifying its apparent volume. It was a sheer optical illusion, but nevertheless was not to be despised.

More dignified, though this method has its limitations, is the use of sculpture and architecture to enhance the consequence of a small water supply. The early fountains of Paris, erected before the present facilities were obtained, show towering classic structures, or groups of figures, with water carefully distributed in meagre quantities. Often, as in the fountain of the Rue de Grenelle, the thing was carried too far; it is sometimes hard to tell whether the structure can longer be considered a fountain or has become a

mere monument. Diderot rightly speaks of "The beautiful fountain of the Rue de Grenelle—I say beautiful for the figures; the rest I find less than mediocre." Later, explaining, he says: "No fountain can be beautiful where the distribution of water does not form the decorative principle."

One of the best designs in Paris for the efficient use of water is that of Visconti in the

A quite different ideal of fountain construction prevails in Mohamedan countries. There the fountains are generally in small closed buildings, polygonal or square, ornamented richly, with colonnades, niches, cupolas and carvings, but have only small basins to receive water, which is used with scarcely a hint of its decorative possibilities, flowing like a stream from a faucet. The influence



FONTANA ONOFRIO

AT RAGUSA, DALMATIA

Gaillon fountain, already mentioned. A well-planned wall fountain is that of the Rue du Regard, with classic orders and pediment, the façade carrying in high relief a nude figure with a swan, from whose outstretched bill a stream falls into a projecting basin. Vasari's fountain at the Palazzo Vecchio, Florence, with Verrocchio's cherub and an urn whence three lions' heads discharge water, is another economical design. So is that of the Gatteschi fountain at Viterbo, Italy, dating from the twelfth century; and so, also, is the not very beautiful Hamburg fountain already illustrated.

of this Turkish practice seems to have been felt in the fountain at Ragusa, with its large dome and its incomplete-looking tier of stone, guarded by columns at the angles. The water falls from orifices in the carved panels into the narrow basin. Climatic conditions have doubtless importantly modified this design; it is but another example of the tendency of street fountain architecture to meet local need, which, here and elsewhere, has obtained for it a dignified place in the field of design.

Samuel Swift.



AT TRAMIN, TYROL

TYROLESE ARCHITECTURE.

IV. VILLAGES.

THE distribution of buildings throughout the Alpine countries is a phenomenon to American eyes, for mountainous tracts of our own land are usually devoid of human habitations, and the names of our ranges recall wastes of solitary wilderness. But Alpine solitudes are more difficult to find, are less apparent in reality, than they are in the mind's-eye when turning the pages of written poetry. Villages, cottages and herdsmen's huts appear in the most unexpected places where the difficulties of building, the exposure to the elements and the inconveniences of living in uneasy perches would have discouraged any but a people bred among the mountains, where distances are measured by hours of walking and where hard, knotted limbs are accustomed to treading the earth aslant.

In the Tyrol, configuration of the ground seems to have been no obstacle to the location of single buildings, or of villages. Inaccessible promontories were naturally selected for the strongholds of baronial times, but humbler dwellings cling to the precipitous mountain faces, and villages have grown upon a base of forty degrees or in the depths of a defile, where landslides and floods are forever imminent. Those natural catastrophes, which have caused many an

iron cross to rise in the village churchyards, have been forgotten when habitations were to be reared. A mysterious improvidence, this seems at first; but it must be remembered that sites which promise an ideal of comfort are rare in the Tyrol, and those which escape the flood, face the hail and the hurricane of a higher and colder strata of air and are buried from November until

May under overwhelming snow. Some light is shed on this aimless and picturesque scattering of buildings among the mountains by recalling the position of the feudal buildings in their former surroundings.

The barons of the Middle Ages were monarchs of their valleys. They dominated the country-side, and took upon themselves not only the care of the roads and the policing of their several districts, but they gave free hospitality to the traveler, provided him with shelter for the night and horses for his next day's journey.

Here, as in many

other Teutonic countries in former times, the traveler could not be refused hospitality; and "the lord's shelter" (in old Teutonic, *here-berga*) was the safety of wayfarers, and is still traceable in the modern French *auberge* and the Italian *albergo*. The remoteness of the castle from the thoroughfare along the main valley made it necessary for the lords to entertain their guests at an inn upon the highroad near the base of the hills. This inn was the nucleus of the village. Houses



THE CHURCH OF TELFS



AT VILLANDERS

TYROL

of vassals and peasants soon gathered round it, and straggled on each side along the highway or half-hid themselves in ravines above, where mountain torrents tumbled toward the bed of the valley, turning mill wheels on their way, pressed into many services devised by the ingenious Tyroler, now led to a fountain in the cottage garden, now cleverly geared to rock a baby's cradle.



DESCENT TO THE VILLAGE OF SPITZ

The isolation of the castle became irksome, when violence ceased for a time, and the difficulties of getting supplies and provisions to the steep heights were keenly felt. Moreover, the life of the village became attractive to the lord himself, and its little gayeties and the stream of passers-by absorbed his family and servants. So

long as there was peace in the neighborhood, the castle was abandoned as a living-place, and

the "town house" of the lord could be easily singled out by its size and pretentiousness from the quaint houses of the hamlet. This plutocratic state of things was, however, soon destined to pass. Frequent wars impoverished the nobles and divided their lands. The progress of the times and reforms of government wore away the feudal system and bereaved the lords of their power. The traffic of the common folk growing, and travelers on the highroads



THE PLATZ OF KLAUSEN

increasing in numbers, the nobles turned to the flow of strangers for a means of livelihood. For a time they gathered tolls for the use of their roads and received some revenue from a primitive postal service they maintained. Hospitality began to be charged for, and the inn-hosts prolonged, the local leadership of the Tyrol's noble blood.

The first few buildings of the village were clustered near a stream whose filtering courses



AN INN AT WEISSENKIRCHEN



A MILL AT KLAUSEN



WAIDHOFEN FROM THE YBBS



NEAR SARNTHEIN

penetrated the dry soil and rose in a spring whence the village folk could draw their household supply of water. This was the focus for the buildings, and in the smaller settlements it was marked by a tree trunk hollowed out to receive the water. At larger places a stone basin was built around an upright shaft which supported an iron pipe leading the crystal stream. The ground around this center of outdoor life was reserved when new buildings were erected; the main highway widened momentarily to accommodate the *brunnen* (from which some villages have even taken their name); or a branch road, leading from the mountains, turned in its course to debouch close beside this necessary water supply and useful monument. By this means the *platz* of north Tyrol and the *piazza* of the South first made their appearance.

Later on, the fountains were richly wrought, and frequently a carved image of a martyr, a patron saint or of the Christ was added to the upright shaft which supported

the water jet. Here women and children gathered to fill their buckets. Here was the place for exchanges, gossip, entertainments and athletic feats. To-day the traveler who rides into a Tyrolese village knows that he has reached the center when he gains the *platz*. In noon hours he may find the village road deserted, and only a dog turning a listless ear of life in its midday sleep on a cottage stoop, when the village folk are afield; but the *platz* is never deserted. There heavily shod maidens steal away before him, shyly guarding their full pitchers; and plump little boys in leathern breeches gaze at the stranger with wide, wondering eyes. If it be in the south, a few loiterers will be playing the favorite game of

boccia, or bowls, on the bare ground aside from the path of teams, while others seek shelter from the warm sun under the shaded archway of a house or shop. On a summer's night, small tables with candelabra are set out in front of the inns, and guests grow merry around the ruddy lights.



GARDENS AT KALTERN



GARDENS AT MALS

UPPER VINTSCHGAU, TYROL

Poor and paltry are the hamlets which have not reared their churches. But, nevertheless, there are many such,—a mere handful of cots tumbled as if by the winter storms into an upland crevice,—and the herdsmen of these places still repair for worship to the chapel of the ancient castle. More fortunate villagers point with pride to their church, quite unconscious of its usually crude outline and undignified rococo detail. These buildings are covered outside with a lime wash, so nearly white as to dazzle in a bright sunlight; but the interiors are invariably rich,—though from the point of view of good design, they are vulgarly so. After viewing a garish exterior one

is surprised to find rich strong colors piercing the gloom within and a wealth of twisted altar columns, of multi-colored stone, wrought and gilded ironwork, and sometimes a tree or a vine led from the soil below and trained upon the most important pier. Where there are towers, they are frequently unsymmetrical, and always fantastic in their shape. A copper roof, in varying shades of a literally green old age, invariably covers the belfry, from which during the terrifying storms of winter the bell peals continuously a melancholy warning.

Thus it is that the Tyrolese villages as we find them to-day are ever guarded by the venerable castle, a protecting parent rising



TYPICAL VILLAGE COTTAGES

AT WEISSENKIRCHEN

above the verdure which surrounds a conglomeration of chimneys, towers and brown roofs below. For the castle has been virtually the source from which all the habitations have sprung, whether they are clustered in villages or scattered over the steep enclosing sides of valleys. And this origin is frequently revealed in the village names. Goldegg, Haselburg and Salzburg are but a few, comprising the name of the castle itself, for the village was understood to be the necessary accompaniment of



AT ST. MICHAEL, (EPPAN)

the far-famed *burgs*. As many as half a dozen villages took their names from the Reids—that old family of castle builders,—and the frequent occurrence of the suffix *stein* in the village names glorifies the great crags which dominate their several localities and have afforded foundation for feudal buildings. Formerly the village was only an incident to those who lived in the castles and ruled the land; but now the rôles are reversed. The castle is pointed out as an impotent vestige of a

distant age in which the student may read a story and the poet may weave a tale. And the busy village grows and prospers.

The building materials which characterize, chiefly by their color, the Tyrolese villages are two in number: wood and stone. These vary in direct proportion to the size of the village. In the remote mountain hamlets, timber is used exclusively and the settlements are uniformly brown on a background of green. The larger the village, and likewise the individual houses, the more stone is employed; not cut stone, but a coarse rubble, over which a tinted roughcast is spread by the local white-washer, plasterer and decorator (three professions which in the Tyrol are rolled into one). Whatever pigments are employed in this material to give to the walls the small degree of variety desired, the prevailing tone is always gray.

Likewise, the larger the village, the less

variety there is in the individual buildings, the less freedom of outline, often gained at a stroke by the picturesque over-hanging balconies of wood, which nearly surround some of the mountain châteaux. But the most monotonous group of houses in all the Tyrol would still be unconstrained freedom and caprice compared to the architecture of other



AT ST. MICHAEL, (EPPAN)

NEAR BOTZEN, TYROL

lands; and here where level sites for buildings seldom exist, and where Nature herself is bent upon picturesqueness as a vent to her solemn mood of grandeur, any group of buildings, when seen as a whole, could never have been designed more charming than these are and more per-



THE PLATZ OF MILLSTATT

fectly at one with the scene surrounding them. There is no exception to this in any aspect of season or of weather. The villages emerge from the lifting mists of morning, as if obeying one of the mountain spirits the peasants tell of. Through the day, rich verdure of innumerable cottage gardens

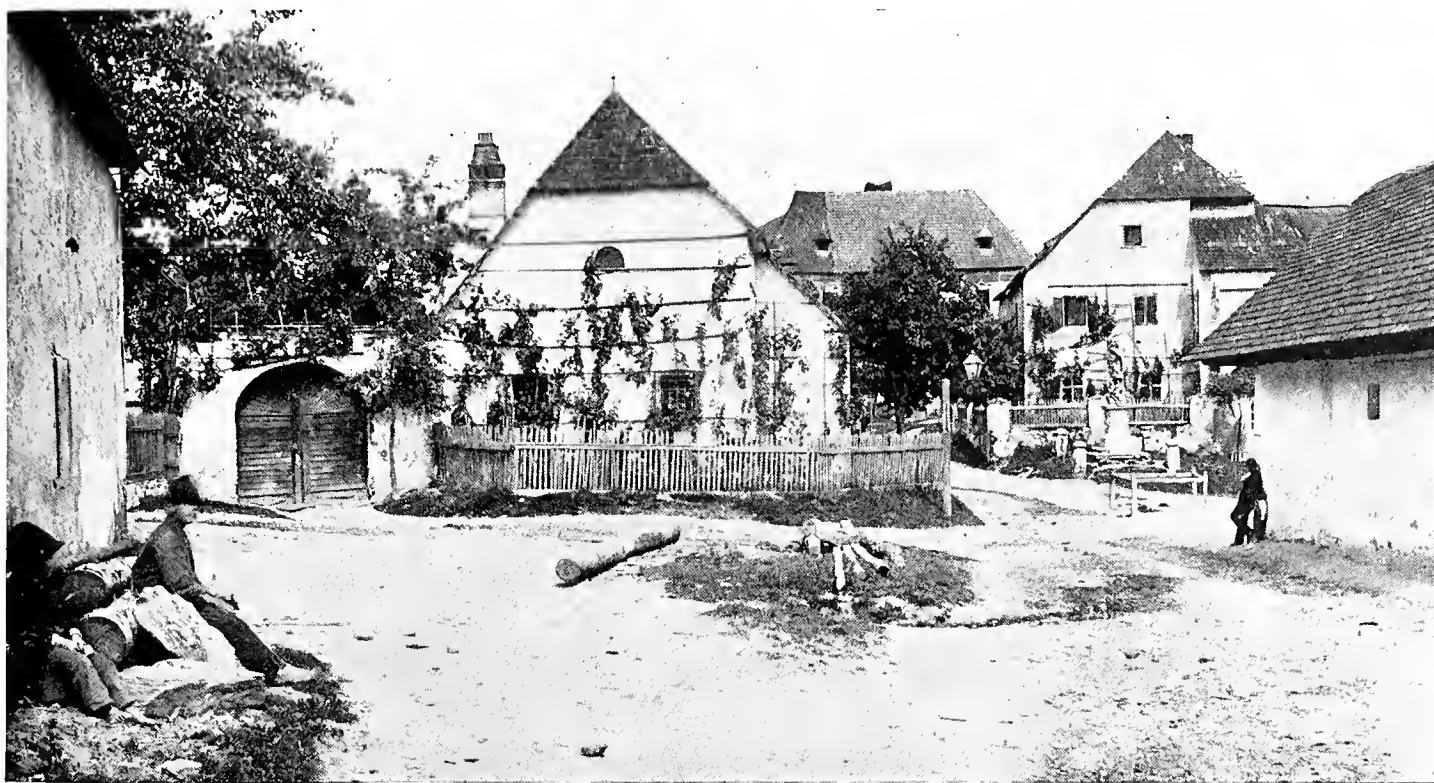


THE PLATZ OF ST. MICHAEL, (EPPAN)

NEAR BOTZEN, TYROL



AT ST. MICHAEL (EPPAN), TYROL



VILLAGE SCENE

AT ROSSATZ

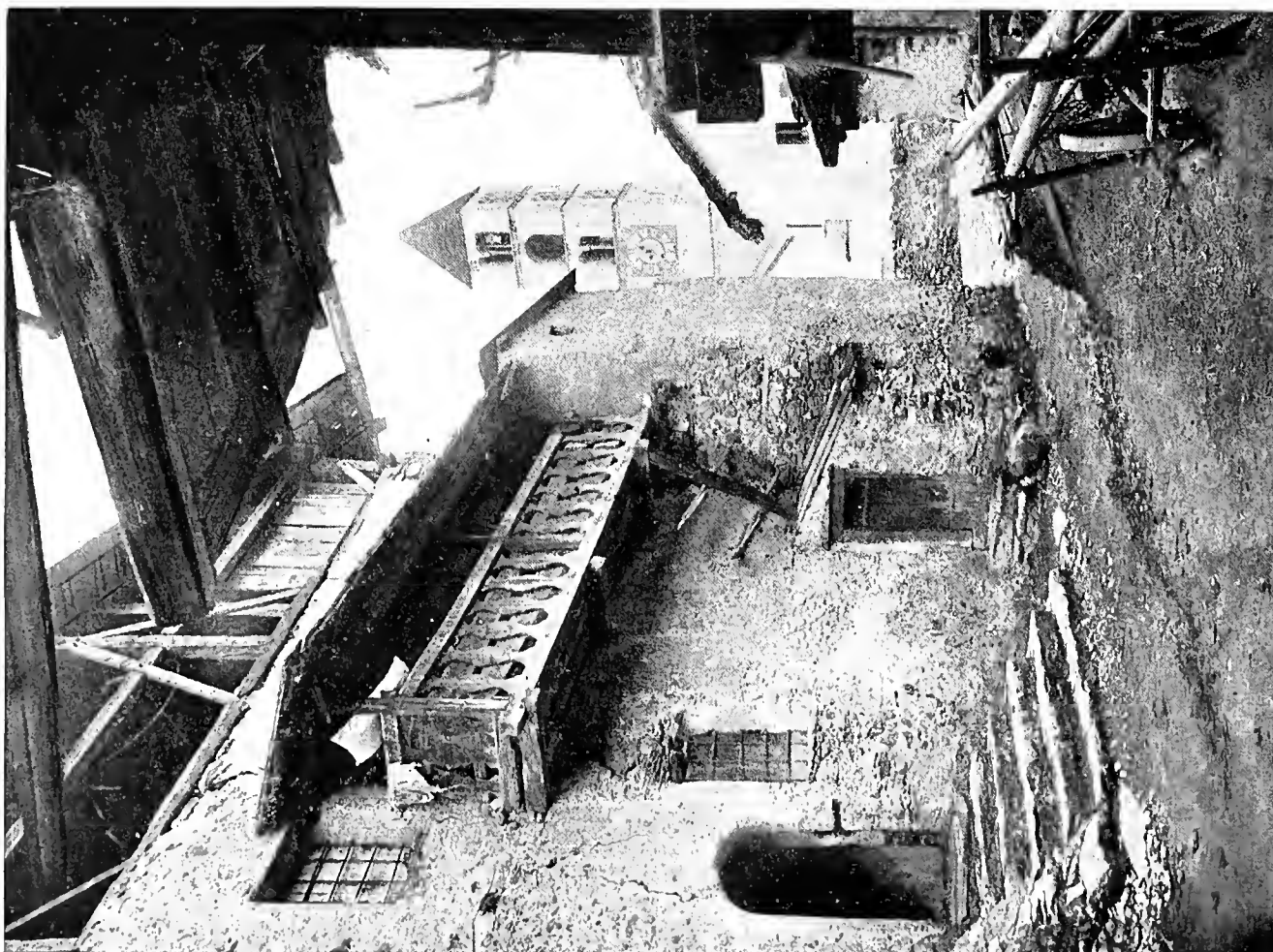
and trees protruding from narrow crevices between the buildings are a relief in the summer sunshine, which at midday is often hot, in spite of the high altitudes. At night,

twinkling street-lamps or a dim gleam from a window, suffice to locate the hamlet in the enveloping gloom, for electric lights and other modern improvements are viewed as much



A HOUSE ON THE PLATZ

ROSSATZ



AT SCHLUDERNS



AT BRUNECK

IN THE PUSTERTHAL



THE PLATZ OF SCHLUDERNS

VINTSCHGAU, TYROL

askance, as were the engineers who came to build the first railroad in this primitive country. Sidewalks, drainage systems and many other improvements are still considered inventions of the devil, and should they be welcomed, dire results are foretold. Tradition tells of a village which stood in the bosom of a wide and fertile valley. The

inhabitants suddenly losing their respect for God, one day the water rose from the earth, spreading over the valley, and entirely inundated the place forever. The bells of the accursed village fishermen still hear from the depths of the water on still summer evenings.

Herbert C. Wise.



COTTAGE GARDEN, NEAR KÄRNTEN

THE SOLDIERS' AND SAILORS' MONUMENT COMPETITION.

IN PHILADELPHIA.

WHEN the competition for the Soldiers' and Sailors' Monument, to be placed in Logan Square, Philadelphia, closed on March 3d, sixty-two designs and seven models were submitted. The sub-committee of the City Councils, which had the work in charge, was fortunately open to professional suggestions, and assistance in the preparation of an equitable program was accepted from the T-Square Club and the Philadelphia Chapter of the American Institute of Architects. One juror, it was announced, would be selected by each of those societies, and these two persons would select a third. In this manner the decision upon the designs lay in the excellent judgment of Mr. C. Howard Walker of Boston, Mr. John M. Carrère of New York and Mr. Charles Grafly of Philadelphia. On March 25th awards were announced as follows:

FIRST—LORD AND HEWLETT, NEW YORK CITY.

SECOND—C. F. ROSBORG, NEW YORK CITY.

THIRD—W. L. COTTRELL, NEW YORK CITY.

FOURTH—ACKERMAN & ROSS, NEW YORK CITY.

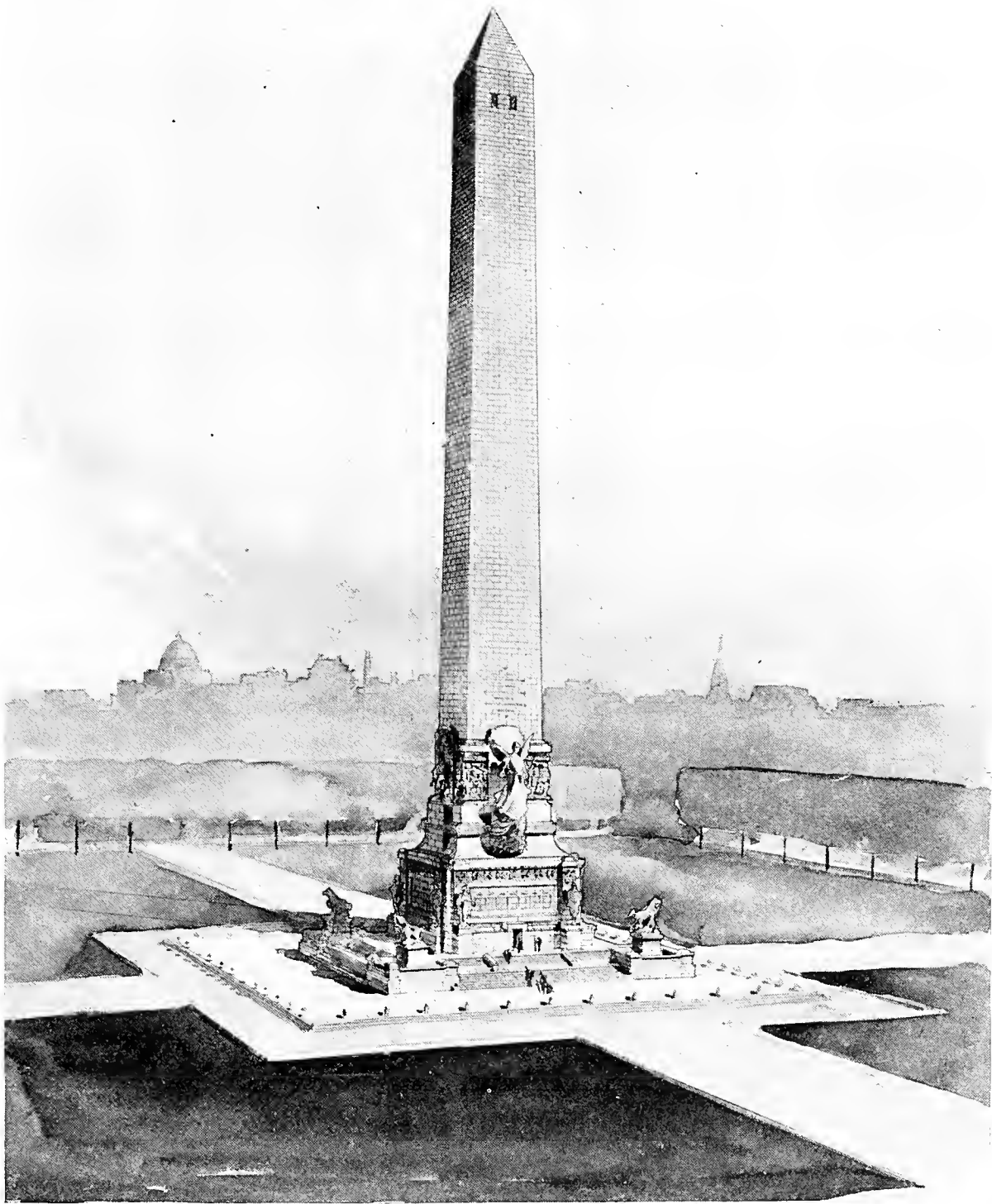
FIFTH—CARY & LYLE, BUFFALO.

Design number three received favorable comment in the report of the Jury, in being "especially worthy of praise for its distinction and appropriateness." The author of the best design is to receive a prize of one thousand dollars; of the second, six hundred dollars; of the third, four hundred dollars; of the fourth, three hundred dollars; and of the fifth, two hundred dollars. The first, second and third prize designs are illustrated on the following pages.

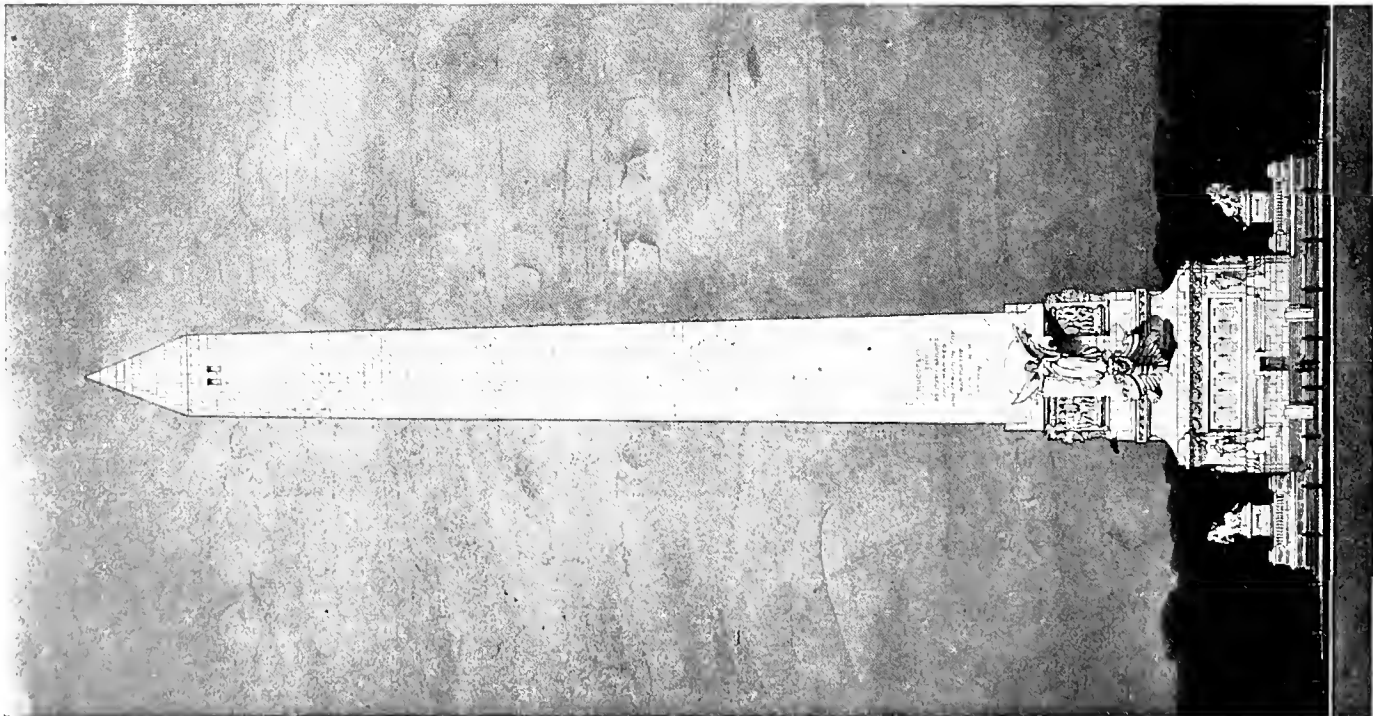
The competition did not provoke a very general response throughout the country. The reward may have been considered trivial, and the publicity the project enjoyed was, perhaps, insufficient for many strong designs to be entered. Among all these, real competition existed only between six or eight. It was a matter of regret that the names of local firms did not appear among those of the successful competitors. Though a number of Philadelphia architects entered draw-

ings, the best designers of this city held aloof from the competition chiefly because of their belief that the monument would never be built. This opinion reflects, perhaps, the earnest desire of public-spirited Philadelphians that the expenditure of half a million dollars for this structure, in the particular part of the city where it is now proposed to be placed, shall never be made; or at least, not until such an improvement can be devised to have a more far-reaching effect in the improvement of the city's plan than the burdening of this unimportant square. To isolate such an ambitious monument, "In honor of the soldiers, sailors and marines who served in the war for the suppression of the rebellion," upon a rectangular space only 650 x 560 feet, in an uninteresting section of the city, and enclosed by streets indifferent in their architectural character, is certainly to be deprecated, in the absence of any broader architectural scheme by which the surroundings would be improved.

In spite of Logan Square's location in the midst of a painfully rectilinear street plan, not a single vista for viewing a monument is afforded by the adjacent streets (except from a small one two blocks in length), for the center of the square, and therefore the necessary center of the shaft, is out of axis with the thoroughfares. This project, if here carried out, would be only another sad mistake in placing such as we find exhibited in the Washington Monument at the Green Street Entrance to Fairmount Park, and in a score of other errors recently made throughout the country in sporadic and short-sighted efforts at beautifying our cities. Says the Monument Committee's report to the Philadelphia City Councils, "Your Committee approved the award of the Board of Jurors, and recommend that in the event of the execution of the work Messrs. Lord & Hewlett be appointed the Architects, and we further recommend the importance of making an appropriation in the near future for the beginning of the work." It is quite improbable that the project will be hastened; and if it is ever carried out at all, it is to be hoped that an existing ordinance authorizing the site of Logan Square may be repealed or so amended that a more effective location can be obtained.

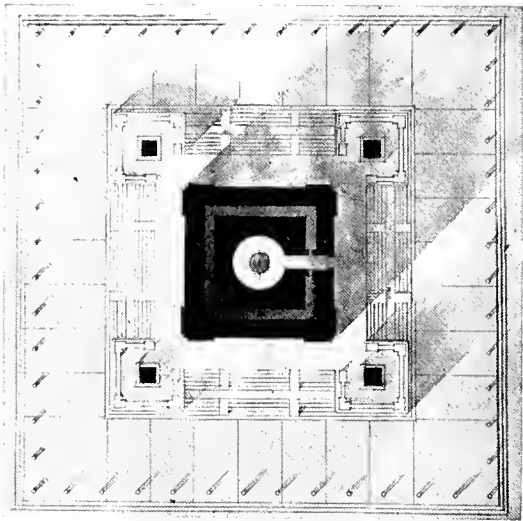


PERSPECTIVE OF FIRST PRIZE DESIGN
SUBMITTED BY LORD & HEWLETT, ARCHITECTS,
IN THE SOLDIERS' AND SAILORS' MONUMENT COMPETITION,
AT PHILADELPHIA

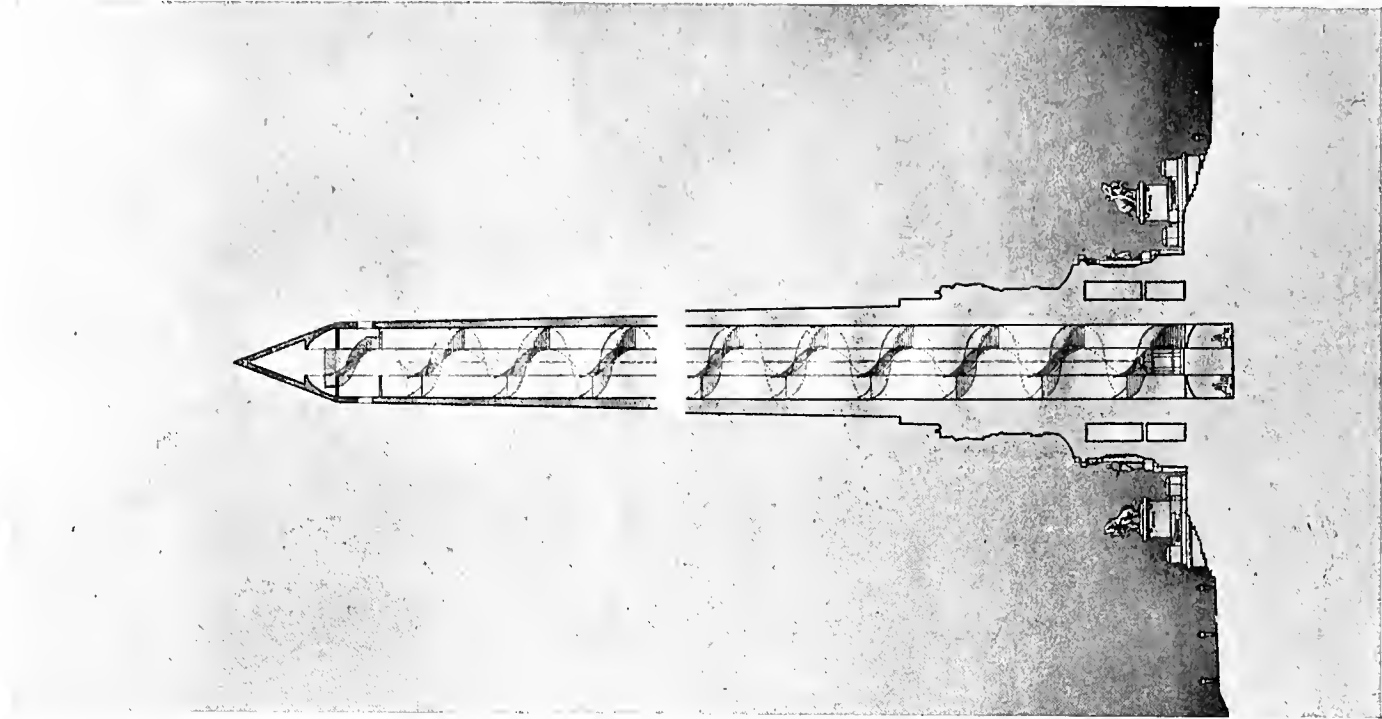


ELEVATION

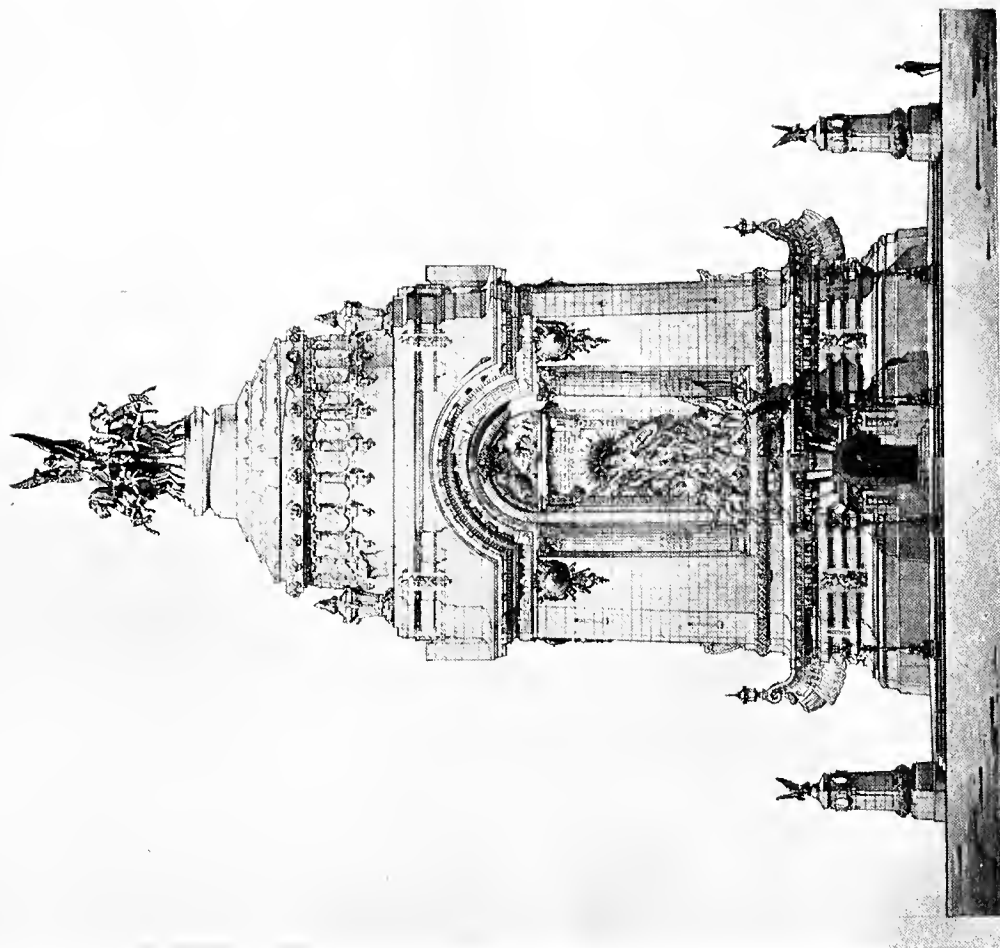
THE
SOLDIERS' AND SAILORS'
MONUMENT COMPETITION,
PHILADELPHIA



THE PLAN
THE FIRST PRIZE DESIGN
SUBMITTED BY
LORD & HEWLETT
ARCHITECTS
NEW YORK CITY

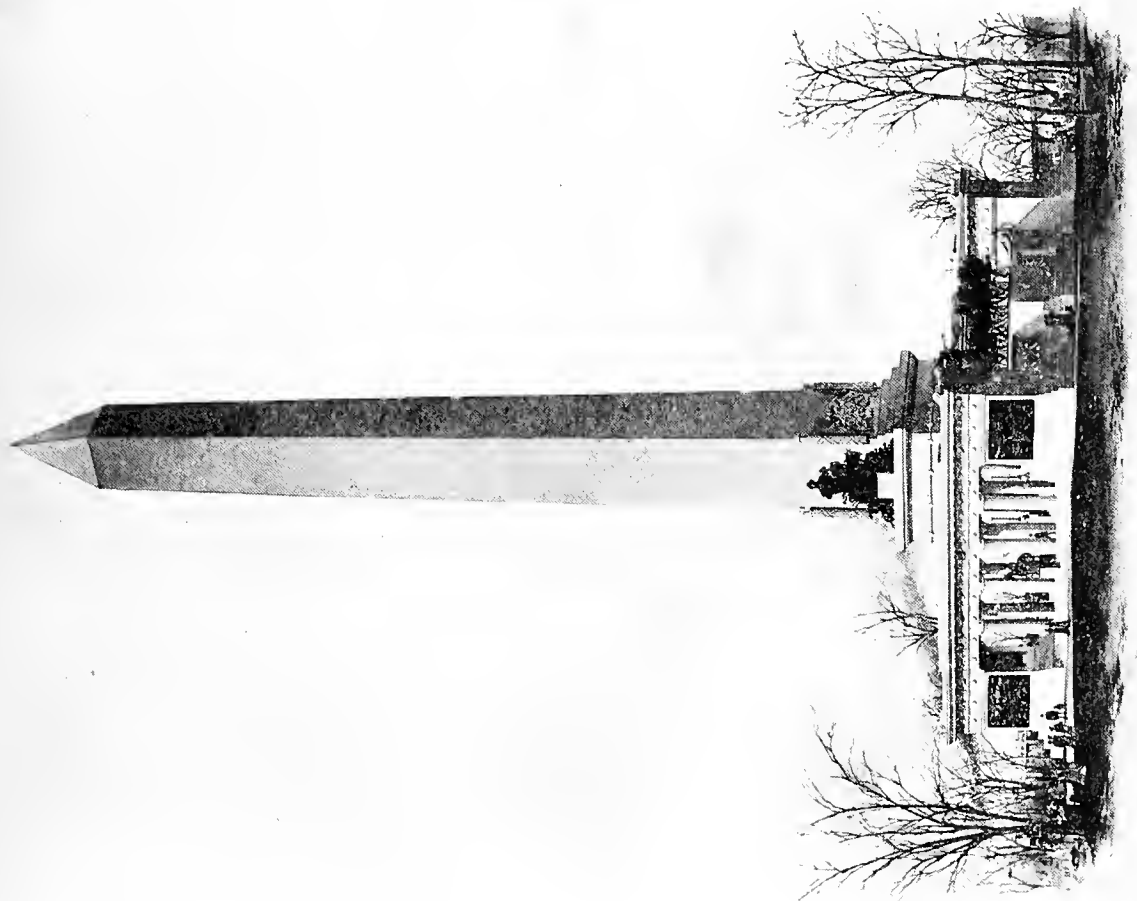


SECTION



SECOND PRIZE DESIGN

BY C. F. ROSBORG, ARCHITECT



THIRD PRIZE DESIGN

BY W. L. COTTRELL, ARCHITECT

THE SOLDIERS' AND SAILORS' MONUMENT COMPETITION

WE have been requested to announce that the Fourth Annual Convention of the Architectural League of America will be held at Toronto, Canada, on Thursday, Friday and Saturday, May 29, 30 and 31, 1902. The Architectural Eighteen Club of that city, one of the fifteen progressive organizations of young architects which comprise the League, will be host for the visitors, and it has planned to make the occasion both profitable and interesting. The topics for discussion this year are to be chiefly those of municipal improvement, architectural education in America and the various departments of club work. It is the custom at these conventions that all sessions, except the closing banquet, are open to the public; and unless this year's gathering falls far below the previous ones held at Cleveland, Chicago and Philadelphia, there are certain to be addresses not only of intimate concern to practising architects but of a keen general interest. The subject of municipal improvement alone has unusual possibilities in interesting outsiders in the work of the Convention. A stirring and beneficial part of these yearly meetings of our club men has been the after-dinner addresses at the banquet by which the sessions have been closed. Memory of the inspiring words of Mr. Sullivan at Chicago and Mr. Cass Gilbert and Mr. Blackall at Philadelphia is sufficient to tempt all those who heard them to repair to Toronto this month in expectation of similar pleasures.

"THE Book of Bulbs"¹ is the fifth of the little volumes called "Handbooks of Practical Gardening." Its author is himself a practical gardener, being a canny Scot from the county of Kirkcudbright, and a frequent contributor to the English gardening periodicals. The little book covers the whole alphabet of bulbous plants from Aconite to Zephyranthes. It describes the several species and gives cultural directions. It includes a far wider range of plants than it is possible to grow here in any but our southern states. Indeed, it is a great pity that many of the admirable English books on gardening cannot, for our own use, be Americanized. How highly useful to us

would be, for example, such a work as Robinson's English Flower-Garden were it subjected to such changes as would fit it to the needs of those who live in the United States and Canada. Such an undertaking would call for very wide experience on the part of one who essayed the task. Still the experiment would be worth trying.

IN the case of Miss Jekyll's "Lilies for English Gardens"² such a change, though less necessary than in "The Book of Bulbs," would be a welcome one. The uncertainty as to whether a lily that is described as perfectly hardy in an English garden will stand the frosts of one of our northern states makes it necessary to refer to some reliable American treatise before deciding whether it is or is not worth while to plant it. But apart from this difficulty, Miss Jekyll's latest book, like all of hers, is an admirable one. It tells amateurs in the plainest way just what they want to know about lilies. The information is condensed, and put as briefly as possible. The arrangement is a simple one, and reference to any statement is easily made. Only such lilies as are worth growing and may be grown in England are described in the book. It is therefore not a botanical treatise, yet the author, contrary to her usual custom, enters upon the subject from its botanical side, devoting her first chapter to the classification of the genus *Lilium*, and making the subdivisions admirably clear, not only by her descriptions but by drawings in outline which show the characteristics of each. The very abundant and beautiful illustrations are most acceptable. Only about half the book is given up to the description of the several species. The remaining pages cover such subjects as lilies in pots in outdoor groups, lilies in the rock-garden, lilies as cut flowers and the most beautiful ways of growing lilies. Needless to say that all this, being by Miss Jekyll, is readable in the extreme and full of the most admirable suggestion.

¹The Book of Bulbs by S. Arnott. 114 pp.; 11 half-tone plates: 5" x 7½". London and New York, John Lane, 1901. Price \$1.00.

²Lilies for English Gardens: A Guide for Amateurs, by Gertrude Jekyll. 72 pp.; 63 half-tone plates; 5½" x 9". London, Geo. Newnes; New York, Charles Scribner's Sons, 1901. Price \$2.50.

THE "VULCAN" LOCKS



The age of Iron is past and the age of Steel is fully born. This new material, and the latest machine processes, have been utilized by the Yale & Towne Manufacturing Company of New York and Stamford, Conn., to create a new American product, viz., the "Vulcan" line of Builders' Door Locks, formed wholly from wrought materials, machine-made throughout and interchangeable in all its parts. The "Vulcan" lock, first introduced in 1897, embodies new principles, new materials, new designs, new mechanism and new results.

The case, cap and internal mechanism are all of cold rolled steel; the front is formed of a base-plate of the same material, over which is drawn a heavy skelp of wrought bronze or brass; the bolt-heads are of swaged bronze; and the keys, shown by Figure 1, are of cold forged steel.

The Cycloid Knob Action, for transmitting motion from the knob to the latch bolt and consisting of inter-gearled levers with pivotal motions, as shown by Figure 2, is substituted for the sliding action heretofore generally in use. The construction provides two springs, one acting on the latch-bolt only and both acting on the knob, thus giving the most perfect "easy spring" action. All of the working parts are provided with broad bearings, accurately fitted by machine processes.

The Bracket Bearing, shown by Figure 3, substitutes for the loose and inefficient thimble heretofore used a bearing which perfectly guides and supports the knobs. A lock spindle is practically a short piece of shafting, with a wheel or pulley (the knob) on each end. Obviously the bearings of such a shaft should be as far apart, and as near to its ends as possible. In common locks, on the contrary, they are at the surface of the door and therefore near together. The bracket bearing has long been used with the Yale Locks and is now associated also with the "Vulcan" locks. It consists in a construction of the knob shank and its supporting thimble, such as to bring the bearings or points of support as close to the knobs, and therefore as far apart as possible.

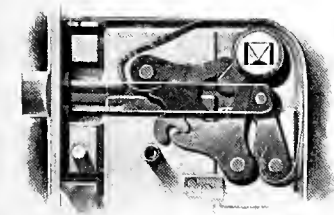


Fig. 2

The illustration herewith (Figure 3) shows the old and the new constructions, the dotted lines indicating the play or "wobble" of the common knob, with its clumsy adjustment by means of a row of screw holes in the spindle, supplemented by tin washers in a loosely fitting thimble close to the surface of the door.

The Triplex Spindle, first introduced with the Yale Locks, was adopted also for use with the "Vulcan" Locks.

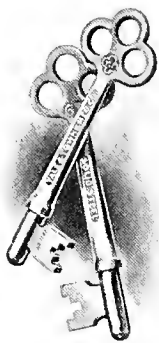


Fig. 1

As shown by Figure 4, the spindle consists of three triangular rods which, when united, form a square spindle, to one end of which one knob is permanently pinned. The other knob carries a set-screw which bears on the central piece, or wedge, of the spindle, and the tightening of the screw expands the spindle, forcing it into frictional

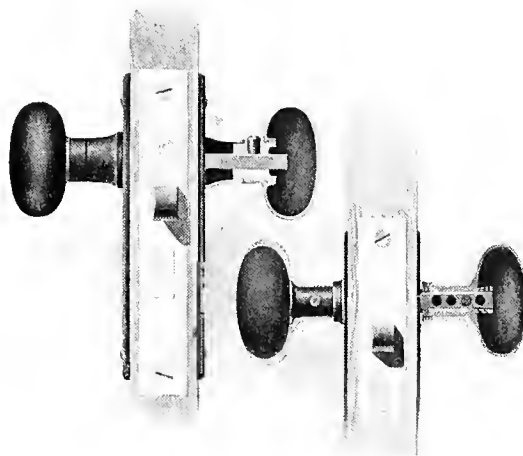


Fig. 3

engagement with the knob shank, thus holding the knob securely at any point, affording perfect adjustment without resort to washers, and eliminating all looseness or rattle of the knobs.

The mechanical combination thus formed comprises the triplex spindle, admitting of perfect longitudinal adjustment of the knobs, and the bracket bearing, which supports and guides the two ends of the spindle close to the knobs. The result is a perfect mechanical assemblage, easy to apply, eliminating all causes of future disturbance and certain to give permanent satisfaction.

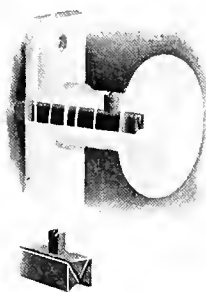


Fig. 4

Exhibit rooms for the convenience of architects and their clients are provided at the Company's General and Branch Offices. These offices are located as follows: General Offices, 9, 11 and 13 Murray Street, New York; Branch Offices, 131 Wabash Avenue, Chicago; 630 Witherspoon Building, Philadelphia; and 12 Pearl Street, Boston. The works are at Stamford, Conn.

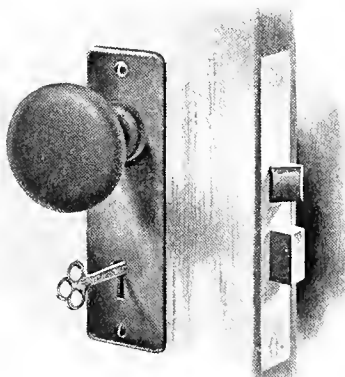


Fig. 5



“SUNNYSIDE”

THE HOME OF WASHINGTON IRVING.

This quaint old mansion is one of the literary and historical shrines of America, and when it became necessary to enlarge the house and build new stables, a few years ago, the worshippers were fearful that an incongruous result would be unavoidable. The delicate problem was entrusted to Architect William H. Mersereau, of New York, who worked it out so successfully that the wails of the antiquarians were silenced. The house roof is covered with old Dutch tiles, and the difficult task of reproducing the same effect on the shingled roofs of the stables was accomplished by the manufacturer of Cabot's Creosote Shingle Stains, who compounded a Special Stain which imitated exactly the red of the tiles. Mr. Mersereau is only one of many architects who have found Mr. Cabot's willingness and ability to produce these special shades of great assistance, and every architect (and owner) should bear the fact in mind. Cabot's Shingle Stains were the first made, and after twenty years they stand higher in the favor of people who appreciate artistic and reliable effects than ever before. “Sunnyside” additions were made warm and the floors sound-deadened, by lining with Cabot's Sheathing and Deafening Quilt, another of Mr. Cabot's scientific and ingenious products.

The Willner Wood Co., 52 Wall Street, New York, are turning out very handsome carvings on solid wood by patent process, thus being able to reproduce very elaborate designs at comparatively small cost. This work is being largely used by piano manufacturers for panel work, cabinet and furniture manufactures and for interior decorating. Even with increased facilities their works at Rahway, New Jersey, have been working overtime getting out special orders.

THE BURROWES INSECT SCREENS

RECENT VALUABLE IMPROVEMENTS.

The E. T. Burrowes Company of Portland, Maine, has recently invented a sliding screen that can be adjusted for the varying widths of the windows and fitted without cutting or planing the screen. This New Century Screen is easily regulated to slide more easily or more tightly by means of a metal fixture operated by a special screw leading through the screen frame and turned handily. All bearing parts are of metal, the screen is workable in all weathers, and slides most smoothly.

They also have an improved method of wiring, using no tacks. They fasten each and every strand of the netting. This is in the way the frame is made. The screen is also molded on both sides, giving a complete and handsome finish, while at the same time allowing for the screen to be easily re-wired with simple tools. The Burrowes Copbronze Netting is offered for “rustless screens,” and is strictly guaranteed never to rust or corrode in any climate. It has a rich, statuary bronze appearance, is stiff, strong, and springy, therefore will not dent or bag easily. It is a most elegant netting, and The Burrowes Company will send samples upon request.

They also furnish estimates to architects and house owners for their screens, and have branch offices and salesmen in nearly all the cities in America.

N. & G. TAYLOR CO.

GENERAL OFFICES NOW IN THE MARINER AND MERCHANT BUILDING.

The N. & G. Taylor Company announces the removal of its general offices to the Mariner and Merchant Building, Chestnut and Third Streets, where it has had spacious offices fitted up for its use. This change is necessary for its rapidly growing business in the enlargement and development of its tin plate plant; for its trade in open hearth, soft steel sheets for stamping purposes, and for its business in plate, iron and steel, from its works at Cumberland, Md. Its minor offices are transferred to its tin plate works at Tasker and Swanson Streets, where it has also erected spacious warehouses for the proper handling of goods. Its tin plate departments have also been enlarged, and a new smelting works, to meet the increased demand for its fine makes of solder, babbitt metal, etc., has been built.

This house was established in 1810, doing business at that time in the old district of Kensington; subsequently it removed to Second Street, above Race, then to Third Street, above Race, when in 1845 it built the premises on Branch Street, which it is now vacating. It has had a continuous existence as a firm for ninety-two years, being the oldest firm in its line in the United States. It is the sole manufacturer of the celebrated “Taylor Old Style” brand of hand-dipped roofing tin. This old-fashioned tin is made the same as the first roofing tin that was ever made, which was in 1830, in Philadelphia, and sold by it at that time. The “Taylor Old Style” brand covers most of the

prominent buildings throughout the United States, and is justly held by architects and the trade as the standard of the highest quality.

It received medals for tin plates of high grade manufacture at the Franklin Institute Exposition in 1874, at the Centennial Exposition in 1876 and also at the National Export Exposition, held in Philadelphia in 1899.

THAT EASY MOVEMENT

Quiet and ease is what we seek in the home, be it country or city. The best people, those that know, are using either the Bommer Spring Hinge or the Bommer Ball Bearing Floor Hinge. They work noiselessly, a slight push with the foot from either side causes the door to open either way. Bommer Spring Hinges have become famous for that "easy movement." It is their peculiarity. They do their work calmly; no after-claps and their appearance is elegant and the finish perfect.

"Practically Unbreakable," says the World's Fair award, Chicago, 1893.

Gold Medal awarded, International Exposition, Paris, 1900.

Gold Medal awarded Pan-American Exposition, 1901.

Your hardware dealer can furnish Bommer Spring Hinges. They are manufactured by Bommer Brothers, 257 to 271 Classon Avenue, Brooklyn, N. Y.

"S. B. Church, Seymour, Conn., branch office, Boston, Mass., has recently removed from 21 South Market Street to 38 South Market Street, Boston, where he has a large store fitted up in a most attractive way. This change became necessary on account of his increased business.

Mr. Church's specialty is contracting for complete suburban pumping plants, including artesian wells, wind mills or pumping engines, with ornamental tank towers some of which are very elaborate in design.

He also erects a large number of tank tower outfits for fire protection for factories.

Mr. Church installed the water plant in connection with 'Bellefontaine,' Lenox, Mass., the beautiful suburban residence which our readers have become familiar with through the articles issued in our January and February numbers."



FACTORY OF THE ROOKWOOD POTTERY CO.

CINCINNATI

Is illustrated with the idea or showing that because a building is used for manufacturing purposes it need not be otherwise than artistic. The grouping of the several buildings is interesting in the extreme and conveys the impressions of a large country house rather than a factory.

MERRIMAC POTTERY

It is but a little over a year that the Merrimac Potteries of Newburyport, Mass., have been offering fictile products adapted to the interior and exterior decoration of homes, yet the capacity of the pottery is fully taxed to supply the demand which has come for its ware. The graceful shapes and fine texture of the enamels characteristic of the ware made for beautifying the interior of houses is better known than the class of large garden pottery in red terra cotta and white clays which they are producing in large quantities this Spring. Several extensive gardens in Newport, New York, in the vicinity of Boston, along the North Shore and in the South and West are being fitted up by this Pottery.

The shapes of the vases are on the lines of old Greek or modern Italian models or from designs which have had the approval of the Jury of The Society of Arts and Crafts in Boston. There are few ways in which a moderate amount of money can be more advantageously used in the decoration of large gardens or smaller grounds, than by the use of growing trees and shrubs in terra cotta pots.

Following up the idea of producing work of a classical character at a moderate cost. The Merrimac Potteries have this month brought out reproductions of the Arrhetian, or, so-called Samian, ware in clays of light red and ivory colors, from the original molds or pottery. These pieces are in the shape of modelled flower bowls and cups and are by far the most exquisite of old Greek modelling.

This ware was made from molds which were taken from vases of the finer metals, and give us, consequently, a good idea of the decoration of the gold and silver vases used by the Roman patricians, especially in the time of Augustus.

JOHN LUCAS & COMPANY

This well-known paint and varnish concern have recently issued a number of the most attractive circulars under the general title of "Lucas' Helps to Solid Prosperity," in which are given many valuable suggestions upon the proper use of Fresco color, oil stains and floor paints. These circulars not only give a general description of the process of manufacturing these products but contain as well samples of the various colors, shades and tints thereby giving much valuable information and useful suggestions to prospective customers. The constant and increasing demand for the Lucas goods have necessitated them increasing their Power Plant and Manufacturing and Warehousing Departments. This increase is particularly marked in their West Indies and South American Business.

COLUMNS AND COLUMNS

The old say that "Imitation is the sincerest form of flattery" is just as true of wood columns as of anything else. That the Koll's Patent Lock Joint Columns, manufactured by the Hartmann Bros. Manufacturing Company, Mount Vernon, New York are now imitated by more than a score of concerns is pretty sure evidence that the original must possess exceptional merit. It does not follow, however, that the original and the imitations are alike: The Hartmann Company's orders have increased 100 per cent. during the past year, and in value over 200 per cent., and the mill is kept running to its fullest capacity, even in the dull season. The capacity of the factory has constantly been increased to meet the growing demand for these columns. The construction of one of these columns, from the rough staves which form the column, through the shaping machine, through the assembling, glueing and turning departments, and through the finishing department, until it comes out graceful in appearance and constructed so firmly that it never comes apart, is an interesting process. Much special machinery and appliances are required, and these are the result of many years of experience in this particular line. Columns 30 feet long and 36 inches in diameter are now made and turned by the Company, and it is possible to vary the shape to give them any taper or swell desired.

Among the orders which the Company have recently filled are columns for a new building for Dartmouth College, Hanover, N. H.; the Home for Intemperate Men at Mt. Vernon, N. Y.; Chas. Whitney's new residence, at Centerport, L. I.; a Colonial residence in Lenox, Mass., built by James Clifford's Sons; another built by the Gale Lumber Co. at Pittsfield, Mass.; residences for P. D. Gwaltney and R. F. Berryman, Smithfield, Va. Some of the more recent orders: For W. F. Cotter and W. T. Hadlow, Jacksonville, Fla.; Hamilton Terrace Land Co., Shreveport, La.; Forest Glen Seminary, Forest Glen, Md.; Mount Washington Hotel, White Mountains, N. H.; a residence in Brewster, N. Y., for H. H. Vreeland, President of the Metropolitan Street Railway of N. Y.; the Carnegie residence in New York, and for many Long Branch, Elberon and Rockaway residences. Residences of Mr. Fletcher, Mr. Hartshorn, Claus Spreckles, Mr. Bixby.

A new catalogue has been prepared by the Company and is ready for distribution, showing in detail how the columns are made.

THE "BARDSLEY" CHECKING SPRING HINGES

FOR SWING DOORS.

These hinges are especially adapted to banks, churches, public buildings, butler's pantry and other doors in dwellings, and all doors where automatic closing, combined with gentle, silent action is desirable. Many thousands are now in use.

These are thoroughly practical double acting spring hinges, combined with a perfect device for checking the sudden action of the spring.

The mechanism, very strong and simple, and designed with a view to great durability, is contained in a closed iron casing which is let into the floor or sill, under the door; a brass plate covers this, and is all that is seen. The casing is nearly filled with a specially prepared non-freezing oil, which serves as a checking medium as well as lubricant.

The working parts are of hardened steel, and being constantly submerged in the oil, the wear is very slight. The parts are entirely of metal; no leather packings are used.

These hinges possess the following advantages over the ordinary spring hinges:

They do not swing the door violently, but close it gently and without noise, and stop it at once at the center.

There are no unsightly projections on the door or frame.

The springs are not twisted, but compressed, and do not break or set.

The door cannot sag, being hung on pivots.

The greatest pressure of the spring is at the closing point.

C. SCHRACK & COMPANY

This firm was established in 1816 to manufacture varnishes, etc. The merit of their product was instantly recognized and they at once assumed the foremost place in the confidence of architects and builders, and, during the eighty-six years of their business it has been their constant aim to retain this confidence, with the result that the foremost architects of the country are specifying their goods. Their claim that their varnishes and oil finish must have decided merit to retain their lead in the face of all competitors during all these years is not without weight.

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Applicability to incipient fires as well as to large conflagrations,

The apparatus is designed for Dwellings, Factories, Hotels, and all Public Buildings, and consists of a cylinder, into which is inserted a perforated metal cartridge, filled with a dry chemical in crystal form. The cylinder is to be attached at any desirable point in the building to the ordinary water supply pipe, so that the water upon entering it, flows through and dissolves the chemical, and passes from the nozzle of the attached hose, a perfectly saturated chemicalized stream.

One quart of this chemicalized water will extinguish 200 square feet of flame area in one second.

As the Yantacaw requires no skillful handling, and as there is no heavy weight to carry to the conflagration, and as there is absolutely nothing that can get out of order, a child can manage the Yantacaw as well as a grown person. There are no instructions to be read and memorized, and there is no cumbersome and heavy machine to be carried around and dexterously manipulated when the fire is reached. With the Yantacaw, simply turn on the water, point the nozzle at the fire, and the chemicalized stream will do the rest.

Another great advantage the Yantacaw has over other machines is that it is stationary, always ready for instant use, and always to be found in the same place. Frequently, when a fire occurs, it is found that portable extinguishers have been moved and cannot be found in their accustomed places; and when found they will not work on account of deterioration of chemical or corrosion of nozzle. With the Yantacaw there need be no fears on this score, as there is no possibility of such defects.

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The surface provided by Porcelain Enamel is the hardest, smoothest and most absolutely non-absorbent that it is possible to produce, and the particular value of this feature in sanitary equipment is easily apparent.

The new pattern lavatories made of this material are designed particularly to have as few cracks and crevices as possible and as few separate pieces, thereby reducing to a minimum the possibility of contagion through germs.

"Standard" Porcelain Enameled Ware has attained a world-wide reputation for its excellence and has received the highest awards at all World's Fairs and Expositions. Added to this the full and absolute guarantee that covers this material, makes it desirable to have specifications for bath tubs, lavatories, water closets, kitchen sinks, laundry trays, etc., stipulate particularly "Standard" Porcelain Enameled Ware, to avoid the annoyances inseparable from the inferior and non-guaranteed brands.

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It is well known that water in freezing increases in volume, and that the bulk of the ice formed is approximately ten per cent. greater than the original liquid water.

This irresistible expansion of the ice causes the pipes to split open, or burst, manifesting the damage done at the time of the thaw by flooding and damaging property, necessitating immediate and costly repairs, often including plastering and decorating. It is held by many that pipes burst with the thaw, but in fact the melting of ice gives the first evidence of the damage done.

The system, which is now being satisfactorily introduced all over the country, simply depends upon small malleable iron domes, or chambers placed upon the pipe at intervals to compensate for the usual destructive ice expansion. These domes contain "cushions" of compressed air, and virtually render the entire system elastic, allowing the pipes, to which they are attached, to freeze any number of times without strain or injury to the installation.

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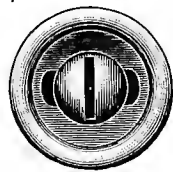
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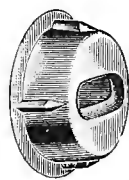
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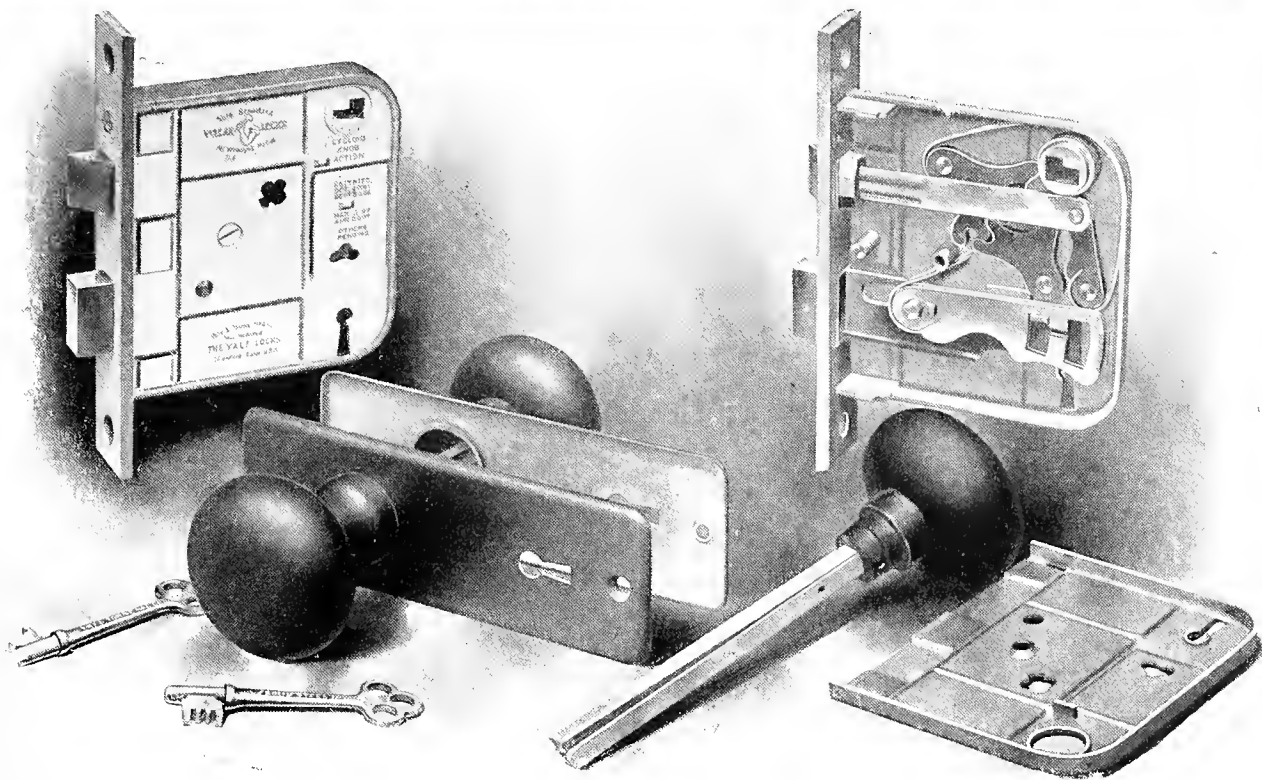
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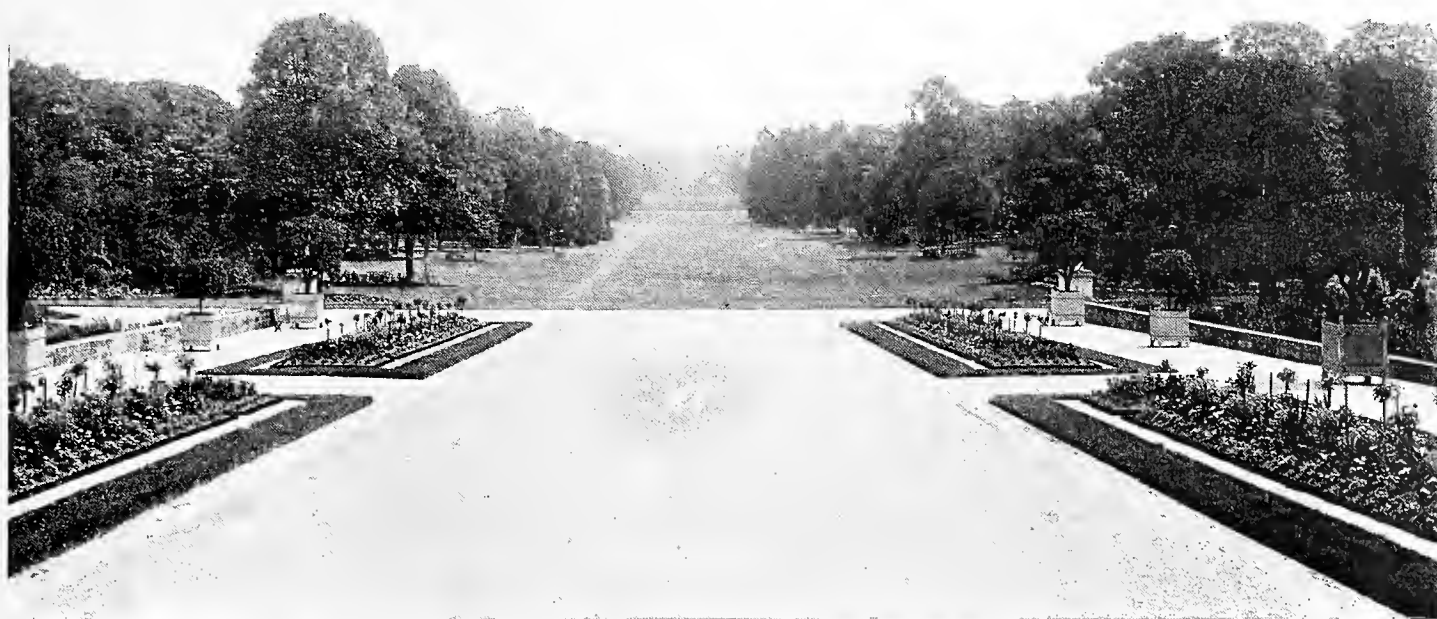
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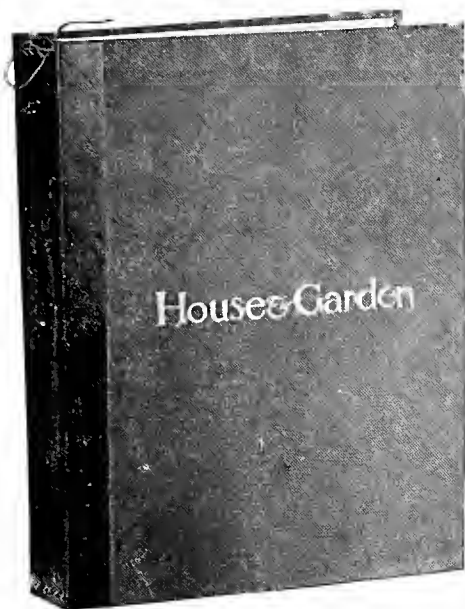
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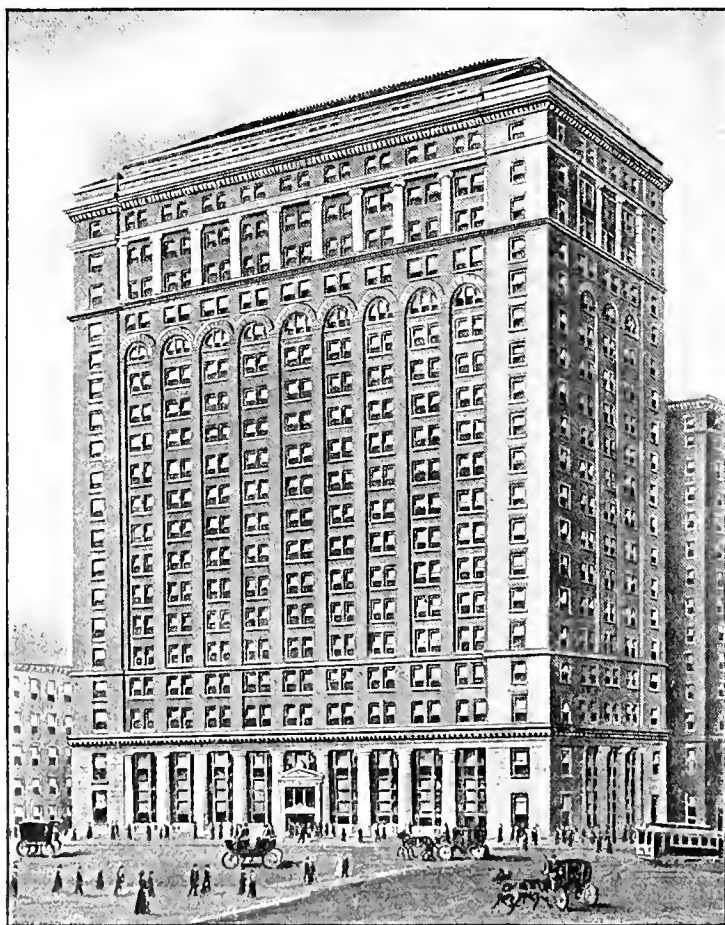


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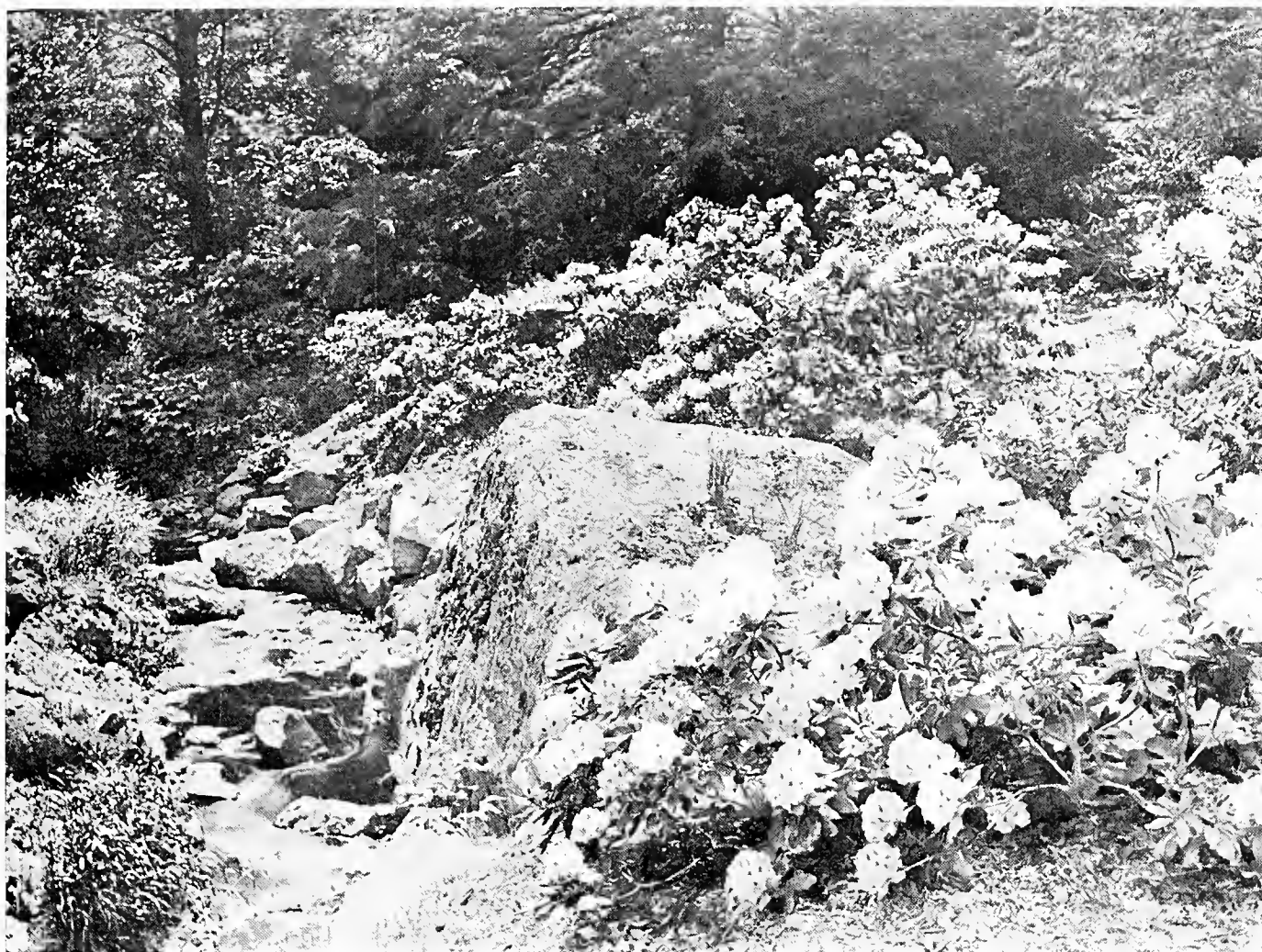
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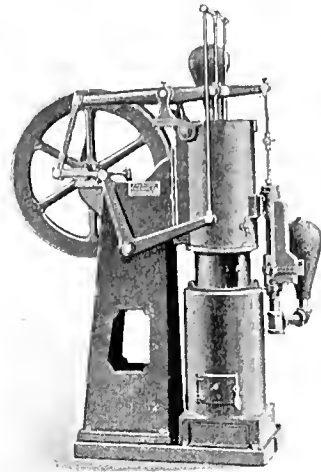
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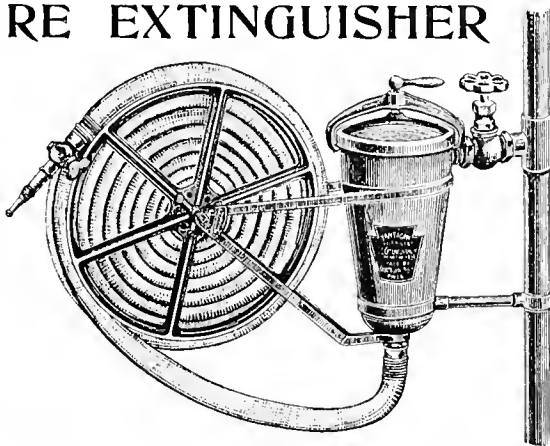
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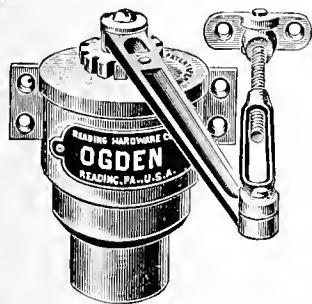
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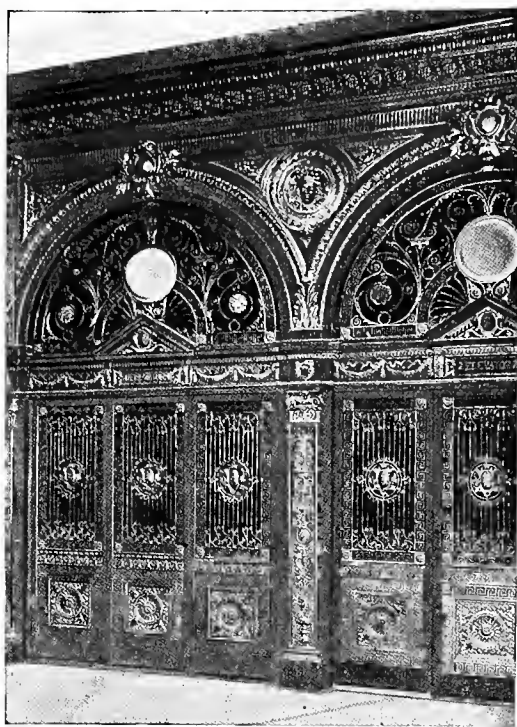
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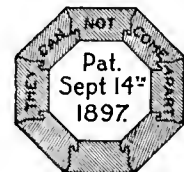
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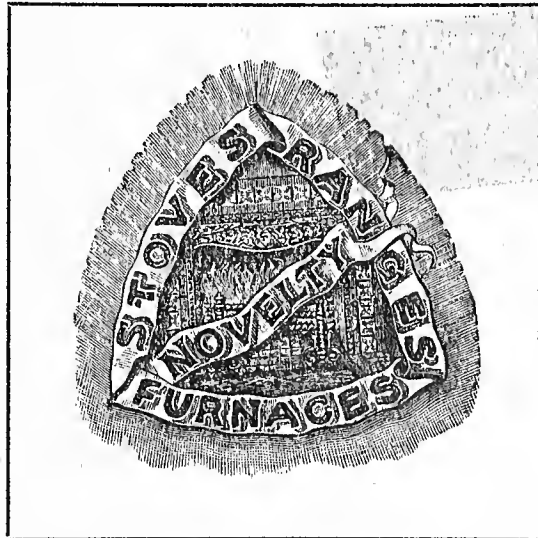
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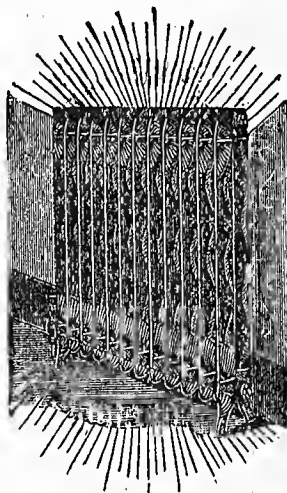


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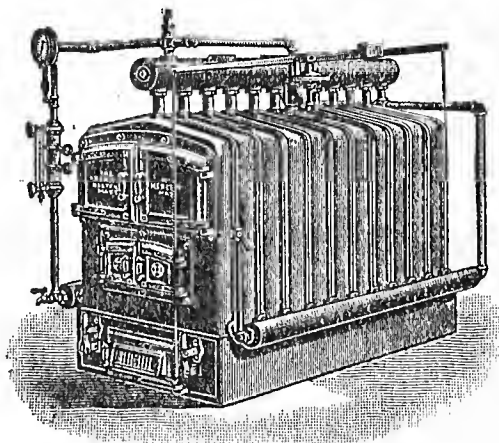
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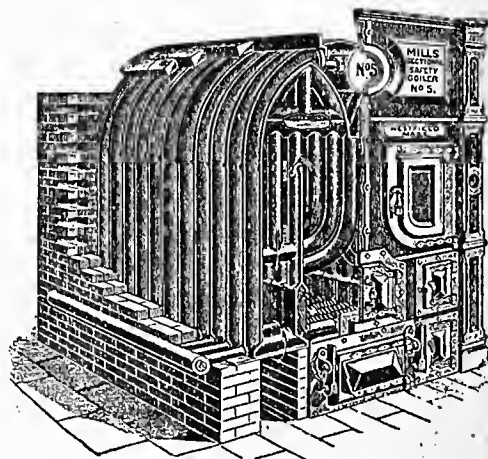
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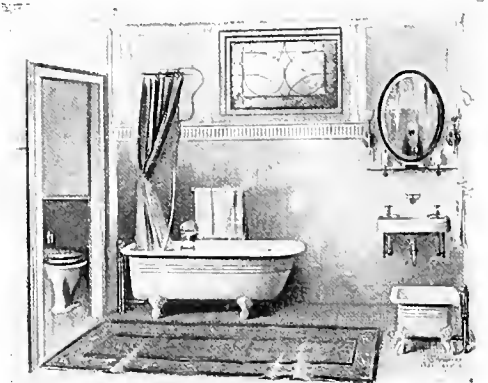
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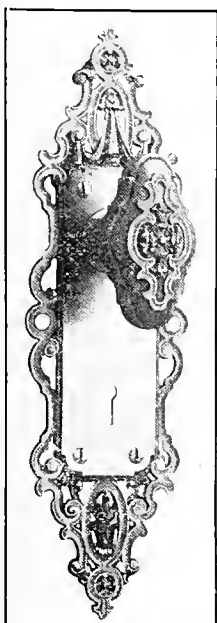
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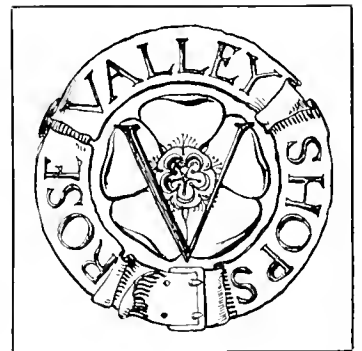
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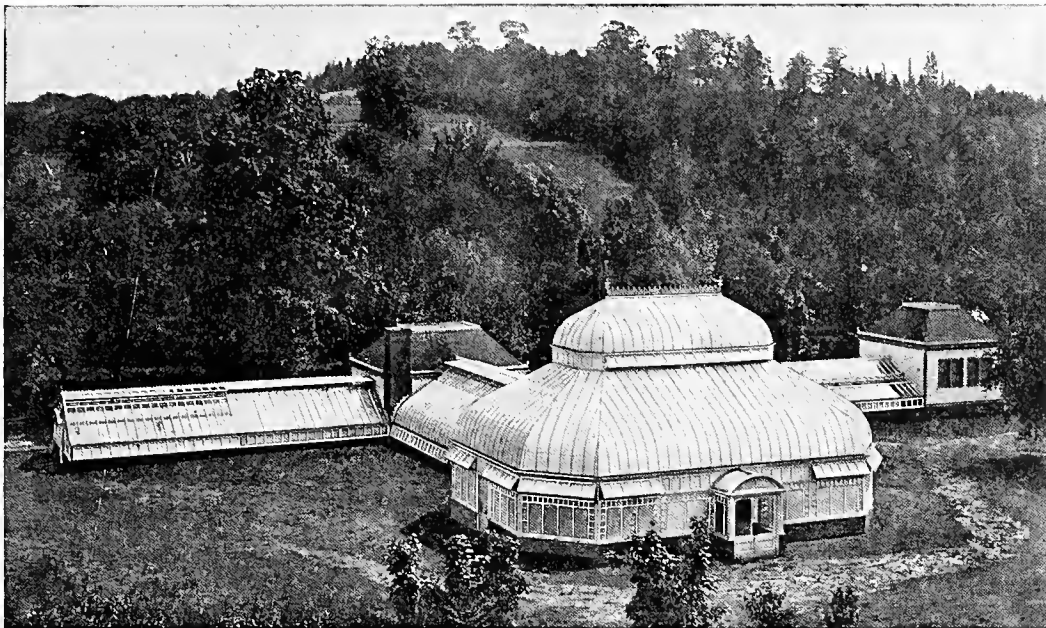
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Contents for June

	PAGE
THE EARLIEST DECORATIVE POTTERY OF THE WHITE SETTLERS IN AMERICA, by EDWIN ATLEE BARBER. <i>Illustrated,</i>	233
A DAY AT "NORTHCÔTE", A HOUSE AND GARDEN IN NEW HAMPSHIRE, <i>Illustrated,</i>	240
THE TREATMENT OF CITY SQUARES, (I), by CHARLES ROBINSON. <i>Illustrated,</i>	252
THE ARITHMETIC OF BEAUTY, by CLAUDE BRAGDON. <i>Illustrated by the Author,</i>	262
REMODELING AN ITALIAN GARDEN IN THE XVIII CENTURY, by ELEANOR G. HEWITT. <i>Illustrated,</i>	266
"TWIN OAKS", by WALDON FAWCETT. <i>Illustrated,</i>	271
A HOUSE AT GERMANTOWN, PHILA., designed by Alfred Cookman Cass, Architect. <i>Illustrated,</i>	276
REVIEWS.	282



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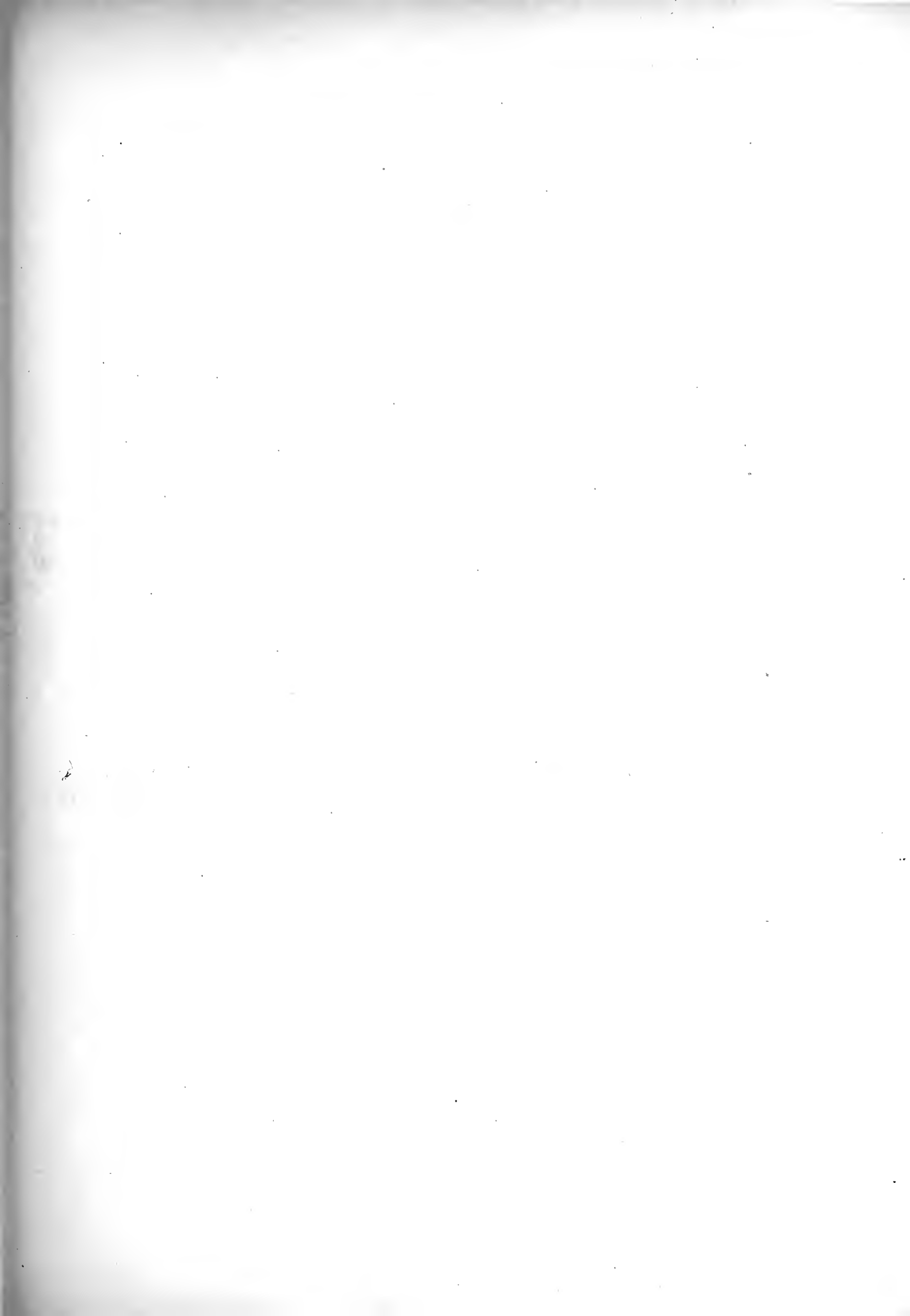
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Sgraffito Pie Plate, made by David Spinner,
Bucks County, Penna., about 1800.
From the collection in the Pennsylvania Museum.

House & Garden

Vol. II

JUNE, 1902

No. 6

THE EARLIEST DECORATIVE POTTERY OF THE WHITE SETTLERS IN AMERICA

BY EDWIN ATLEE BARBER

Curator of the Pennsylvania Museum, Fairmount Park, Philadelphia

THE art of the potter is founded on the earliest industrial efforts of the human race, and consequently the artistic instinct first sought expression through the fruit of the kiln. Man's primary care was to procure the necessary means of subsistence, and when this had been assured he turned his attention to the improvement of his surroundings. It has been said that the history of nations is recorded in the development of their fictile products, and this statement is applicable not only to indigenous peoples but to those which have migrated to other lands, as well.

Among the earlier settlers in Pennsylvania were the Palatines, who began to arrive from Germany and Switzerland toward the end of the seventeenth century. For nearly a hundred years, until the breaking-out of the Revolutionary war, they continued to come in increasing numbers. Many of them took up land in the Eastern counties of the State, particularly in Lancaster, Berks, Schuylkill, Lehigh, Montgomery and Bucks. They brought with them, among other things, a knowledge of the art of working in clay, and the artisans whose services were first in demand in this new country were the potters. It is a curious fact, however, and one not easily explained, that the German potteries seem to have been confined almost entirely to two of these counties,—Montgomery and Bucks. Here, for nearly a century and a half, one of the most remarkable phases of the potter's art continued to thrive on the patronage derived from the neighboring farms.

For some years the people were absorbed in establishing themselves in their new surroundings. They erected unpretentious dwellings of wood and occasionally of stone, sufficient for their immediate needs, and they devoted themselves to the cultivation of their little farms. Their household furniture was of the most primitive sort and the simplest luxuries were practically unknown. They had but little intercourse with the outside world, and the knowledge of the industrial arts which they had brought with them from the Fatherland, so long dormant, at length began to bear fruit. Teachers of *fraktur*—or black letter—sprang up in various parts of the community and the walls of their dwellings began to be brightened with illuminated certificates of birth and marriage and transcripts of hymns and scriptural passages, quaintly embellished with paintings in brilliant colorings. A number of furnaces were erected, where iron stoves were manufactured, with ornamental designs representing incidents in sacred history, and at least one factory was established for the production of colored glassware of excellent quality.

In the first attempts at interior decoration by a hardy and struggling people, we may expect to find a bold and manly vigor of treatment rather than the refinement which is the direct result of long established prosperity. The evolution of the artistic instinct, after the first awakening, is slow and gradual, but none the less certain. The worker in clay who has long employed his time in the production of the coarsest and



BLACK DISH WITH COLORED SLIP PAINTING

1.—Dated 1826. Brought from Germany
From the Collection in the Pennsylvania Museum

simplest utensils will naturally devote some of his increasing leisure to the embellishment of his wares, for the delectation of a sweetheart, a wife or an employer's household. Articles which formerly were intended to serve only a useful purpose are transformed into objects of vertu, to be carefully treasured as heirlooms, and handed down from mother to daughter. The chimney-shelf, the high-boy and the mantel-piece, where previously stood the fat lamp, the apple-butter crock and the candle mould, become resplendent with rows of ornamental pie-plates and brightly colored jars. On each piece is engraved a curious decorative device, or an inscription in the Pennsylvania German dialect, sentimental, philosophical, religious or humorous. Frequently the names of the makers or the recipients are added, and occasionally a date, recording the exact time of manufacture. In the absence of printed literature of a popular nature, these inscribed dishes afforded unlimited

amusement and became very popular with the people.

As early as the year 1733, as indicated by a dated example that has been preserved, ornamental earthenware was being made in the German settlements of Pennsylvania. The common red pottery was covered with a white engobe or coating of slip, through which the decorations were scratched, showing red designs in a white field, reheghtened by additional tints obtained by the use of metallic oxides. The reverse method of tracing liquid "slip" of various colors through a quill on the red ground of the natural clay was also practiced, but to a lesser extent. From this time on, to about 1830, covering a period of a hundred years or more, the twin arts of sgraffito and slip decoration flourished to a most remarkable extent. Then the products from the neighboring settlers of other nationalities began to find their way into the German communities and the home-made pottery was gradually



GROUP OF SLIP DECORATED EARTHENWARE

- II.—Large Meat Dish with Tulip Design and Two Circles of Inscriptions, Dated 1769
 III.—Jar with Tulip Decoration
 IV.—Pie-Plate with Dove and Floral Ornamentation
 V.—Sugar-Bowl with Crown-shaped Cover
 VI.—Pie-Plate with Mounted Officer of Mexican War

From the Collection in the Pennsylvania Museum

supplanted by articles of pewter, china and delft, imported from England and Holland, so that by 1850 the primitive styles of decoration had practically been abandoned in the United States.

As the Pennsylvania Germans were pre-eminently an agricultural race, they drew their first artistic inspiration from the familiar

objects in nature by which they were surrounded. Their earliest attempts at decoration were imitative, rather than inventive. Instead of employing purely conventional designs and geometrical figures, as did the native Pueblo races of the West, they took as their models plants, birds, animals and, finally, the human form. Not the least



SGRAFFITO PIE-PLATES

- VII.—Inscribed Example with Heraldic Lion, made by Frederick Hildebrand
 VIII.—Tulip Decorated Piece made by John Nase, Montgomery Co., Penna., 1826

From the Collection in the Pennsylvania Museum



IX.—Pot-Plate with Rose and Tulips in brown. Made in Eastern Pennsylvania in 1789



X.—Pot-Plate made by John Nae, 1805, bearing etched representation of Washington on Horseback

EXAMPLES OF SGRAFFITO WARE

From the Collection in the Pennsylvania Museum

interesting facts to be learned through the study of their pottery are those relating to the horticultural achievements of the early settlers. We know that the people were lovers of flowers and that they paid considerable attention to the cultivation of their gardens, but we do not find in their literature any mention of their ornamental plants. The simple flower and its foliage figured on their oldest ware. The tulip, which they cultivated extensively, was one of their favorite motives. Next to the tulip in popular estimation was the fuchsia or ear-drop (*oehr-droppen*). Later we find the lily-of-the-valley and occasionally the dahlia represented on their ware. While in time these delineations became modified by a more or less conventional treatment, they usually retained their distinguishing characteristics, by which they can be readily recognized.

The art of slip decoration had been practised in Germany for many years before the German immigration into Pennsylvania had commenced. Examples of this ware were brought to America from time to time, by arriving settlers, and served as models for the potters here. These old pieces are still



EARLY PENNSYLVANIA WORK

XI.—Pie-Plate made by David Spinner
in Bucks Co., Penna., about 1800

XII.—Large Mug with Tulip Design.
Maker Unknown

From the Collection in the Pennsylvania Museum

occasionally found in some of the country houses within a distance of fifty miles from Philadelphia. They are distinguishable from the products of the Pennsylvania potters by the brighter color of the red clay and by the black glaze which covered them. A fine specimen of the imported ware (shown in FIG. I) has for a central design a rudely traced house and tree, with the date "Anno 1826" beneath. On the roof of the building is perched a bird, while a woman stands at the threshold plucking flowers from an enormous garden vase. The coloring of the slips is varied and vivid.

The dishes bearing the oldest dates were flat on the bottom, with straight sloping sides (see FIG. II). These were used for vegetables or for meat pies and answered the double purpose of dish and platter. The curved pie-plate, which is a later form, is indigenous to this country, the home of the fruit pie, and is not found in Europe (see FIGS. IX, X and XI). The sgraffito style of decoration offered greater possibilities to the ceramic artist than the more clumsy method of tracing liquid slips through a quill.

Soon after the death of our first president, some of the German potters sought to perpetuate his memory by depicting him in Continental uniform, mounted on a horse. The representation shown in FIG. X, was a



LARGE FLOWER VASE

XIII.—With "Pie-crust" Ledge and Bird and Flower designs above.
Made by Samuel Troxel, Bucks Co., Penna

From the Collection in the Pennsylvania Museum

favorite one at the pottery of John Nase in Montgomery County. Many examples bearing this design have been found, with dates ranging from 1805 to 1847. These "Washington" plates are among those most eagerly sought for by collectors of early American wares. They frequently contain inscriptions which are usually irrelevant and trifling. On the plate here shown the following couplet is engraved:

*"Ich bin geritten über berg und Dal,
Hab untrennbar funten Üeber ahl,"—*

I have ridden over mountain and valley,
(And) have found disloyalty everywhere.

This sentiment has been altered on a similar piece, of later date, to read, "have found pretty girls everywhere."

embellished with a heraldic lion, was made by Frederick Hildebrand, whose pottery was in the same neighborhood. The inscription encircling it is also of a somewhat philosophical character:

*"Ich leibe was fein ist,
Wann schon nicht mein ist,
Und nur nicht werden kan,
So hab ich doch die freud darn,"—*

I like fine things,
Even when they are not mine,
And cannot become mine,
I still enjoy them.

David Spinner, who came from Switzerland, was one of the most progressive of the Bucks County potters. His sgraffito etchings were considered the best that came from



SGRAFFITO POTTERY

XIV.—Plate bearing Continental Soldier and Colonial Dame.
Made by David Spinner, Bucks Co.,
Penna., about 1800

XV.—Pie-Plate bearing a Parrot, Tulips and Conventionalized Fuchsias. Made by Andrew Headman,
Montgomery Co., Penna., 1808

From the Collection in the Pennsylvania Museum

Perhaps the most common of the inscriptions used by the Pennsylvania Germans is that which occurs on the tulip-decorated pie-plate, also the work of Nase, which is shown in FIG. VIII:

*"Ich bin gemacht von heffner sin,
Wan ich zerbrech so bin ich hin,"—*

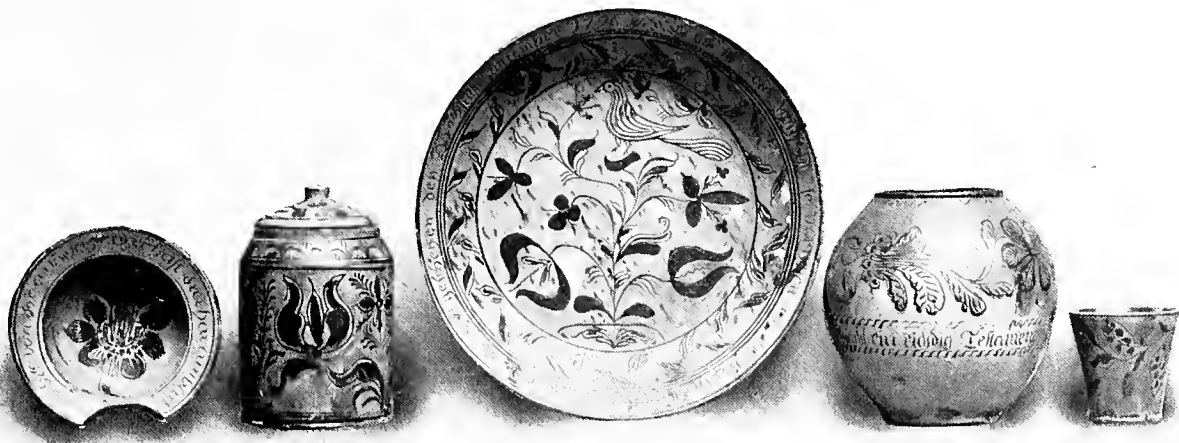
I am made of potter's earth,
When I break then I am gone,

which has reference not only to the dish itself, but to the maker of it as well, and the human race in general.

The smaller plate in the same illustration,

the local potteries. Characteristic examples of his work may be seen among the illustrations here given. This work was executed about the year 1800, certainly not later than 1811, which latter was the year of his death. An entire series of elaborately decorated dishes, which for many years stood ranged along the old Spinner mantel shelf, may be seen in the Pennsylvania Museum, Philadelphia.

In addition to the pie-plates and pan-shaped dishes, which largely predominate, various forms of utensils and vessels are still



GROUP OF SGRAFFITO POTTERY

- XVI.—*Basin with Fuchsia Design* XVIII.—*Large Vegetable or Meat Dish with Bird and Tulips, 1796* XX.—*Drinking Cup*
 XVII.—*Covered Jar showing Tulip Motive* XIX.—*Inscribed Flower Vase, showing Floral Device*

From the Collection in the Pennsylvania Museum

to be seen among the descendants of the old craftsmen. Toy whistles in the forms of birds and animals, mugs and drinking cups, tobacco jars, shaving basins, jardinières and flower bowls, elaborately ornamented in the same characteristic manner, are found in considerable abundance. With the cultivation of the gardens in summer, came the desire to beautify the interiors of the houses through the winter season, and poor indeed was the German household which could not boast of at least a few flower-pots or vases of graceful form and decorative character, which were ranged with their brilliant contents along the sunny window ledge. Here might be observed the rose, the forget-me-not and many old-time plants, both native and imported, among which were numerous rare varieties of the showy tulip, which had been the favorite flower in the Fatherland since the beginning of that most remarkable horticultural mania, the *tulpenwuth* (tulip madness), which swept through Europe in the sixteenth and seventeenth centuries. When the balmy days of spring arrived, the blooming plants were carefully transplanted to the well-kept beds outside. On the lawn the fertile apple-trees were laden with pink and white blossoms, beneath which the peacock strutted proudly in his gorgeous livery.

The Pennsylvania potters infused into their work a large measure of sentiment and the quaint pot works with their low dome-shaped kilns which usually occupied rooms

in the dwellings of the proprietors, were the scenes of social gatherings and merrymaking. Previous to the opening of the apple-butter season, when every good housewife was expected to prepare a supply of this toothsome confection for winter consumption, a stock of earthenware crocks must be provided, in anticipation of the expected demand. This was the busiest period of the year with the local potters. The "burning of the kiln" was always a great event at the pottery, especially to the boys employed there. For thirty-six hours, while the firing continued, they were relieved from the exacting duties of their regular employment. While the men were attending to the fires, the youth of the neighborhood were accustomed to assemble in force to enjoy to the fullest extent the novelty of being permitted to remain up all night. All sorts of games were indulged in,—“Hide and Seek,” “Silly Bunk” and “Tag,” in the moonlight outside, and checkers and dominoes, in the light of the roaring kiln.

There are a few yet living whose memories go back to those good old times, when they “assisted” the old potters in their work; when slip decoration was considered the highest development of the ceramic art,—before the advent of tin utensils and the cheapened white china of more recent times had closed the picturesque old potteries of the Pennsylvania German communities forever.



VIEW FROM THE LILY-POOL AT NORTHCÔTE

Photographed in the Summer of 1898



THE ARCHITECT'S FIRST SKETCH OF THE HOUSE

NORTHCÔTE

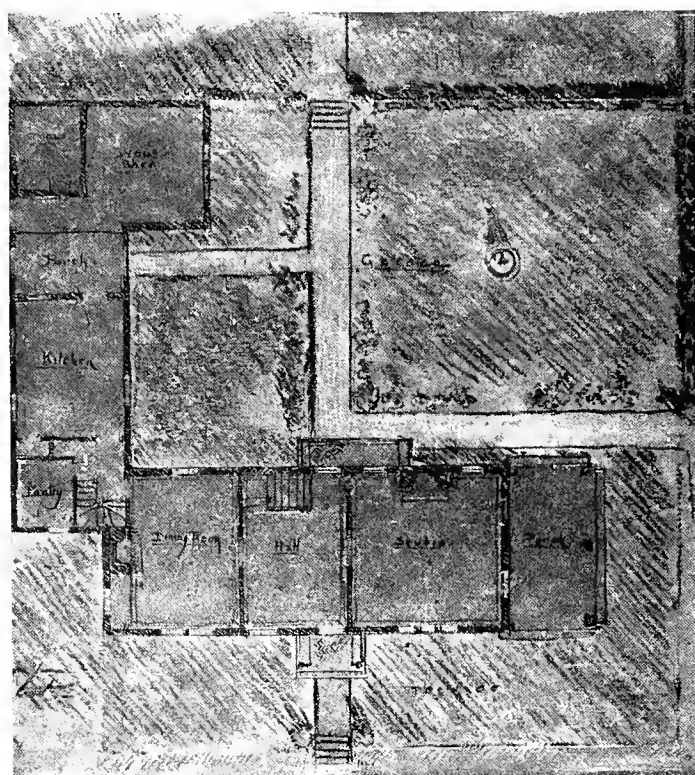
A DAY AT NORTHCÔTE

A HOUSE AND GARDEN IN NEW HAMPSHIRE

IN leaving the Connecticut River and penetrating the hills of Western New Hampshire, one is quickly in the midst of rural scenes and far from centers of feverish activity. Comfortable summer homes have come to lurk there in the copses of forest trees, but the countryside itself bears no marks of disfigurement by restless citizens. From the highway which runs under the brow of Dingleton Hill and then crosses Blow-me-Down Creek, a white cottage is seen rising above a hedge near the summit of a hillside. But little of the clapboard walls is visible, for their height is soon surmounted by a roof of dark red shingles. Several outbuildings of these same colors can be seen between clumps of verdure and above a wall of

shrubbery which is grouped below the hedge extending around the hillside and enclosing the habitation. Beyond all, the summit of the hill rises to a bare outline against the sky, immediately behind the house, and, farther to the eastward, it meets the dark background of a primeval woodland.

Arbor-vitæ, maples and slender poplars appear within an all-enclosing bulwark of young thickly-set hemlocks. Occasional glimpses of a vine-clad arbor and orderly pairs of dark coniferous spires betray a design in the spaces between the buildings; and because, perhaps, these furtive views refuse at a distance to explain themselves to passers-by on the road below, one is eager to ascend the steep hillside and

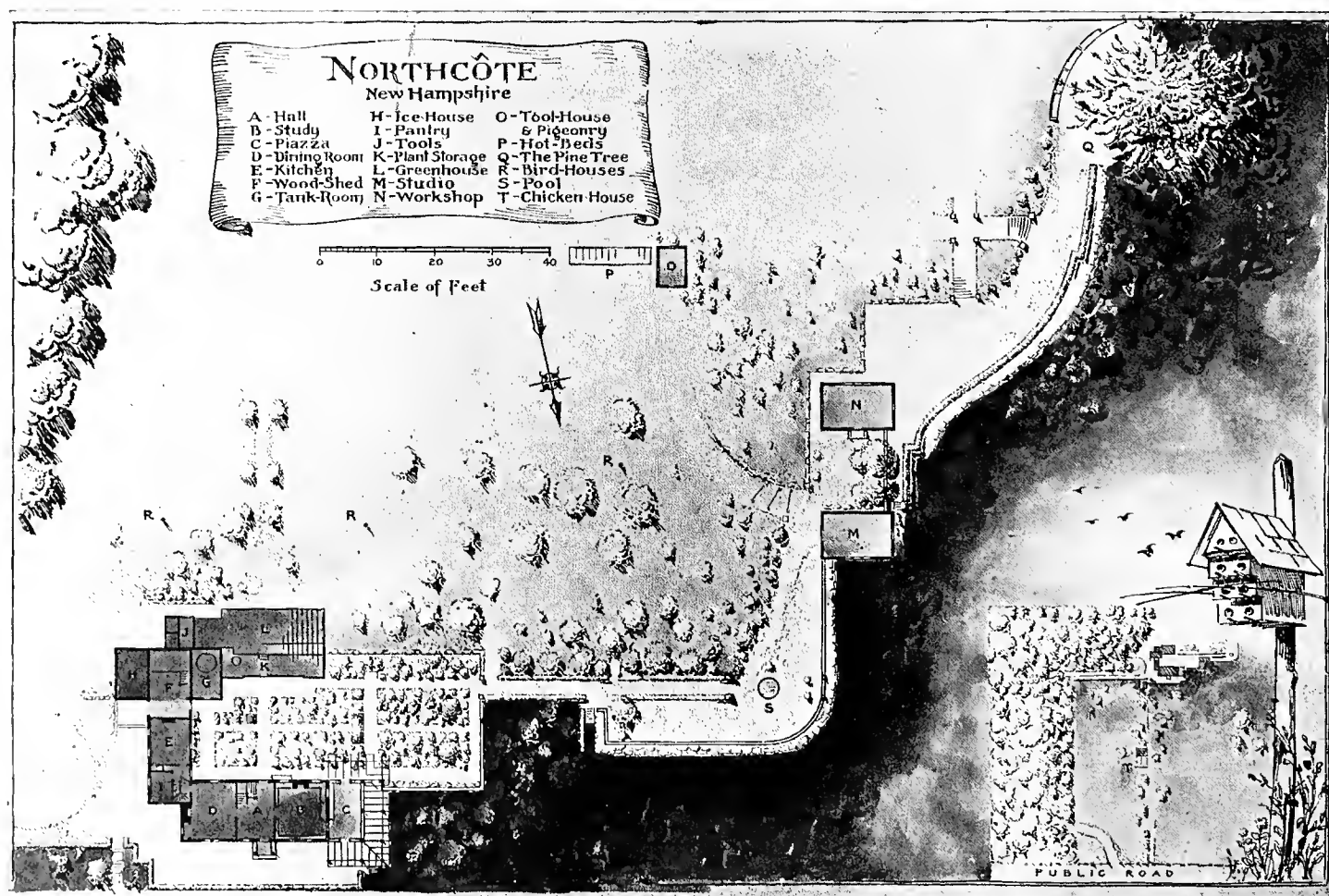


THE ARCHITECT'S FIRST PLAN



A SKETCH BY THE ARCHITECT

Before work at Northcôte was begun



COMPLETE BLOCK-PLAN OF NORTHCÔTE

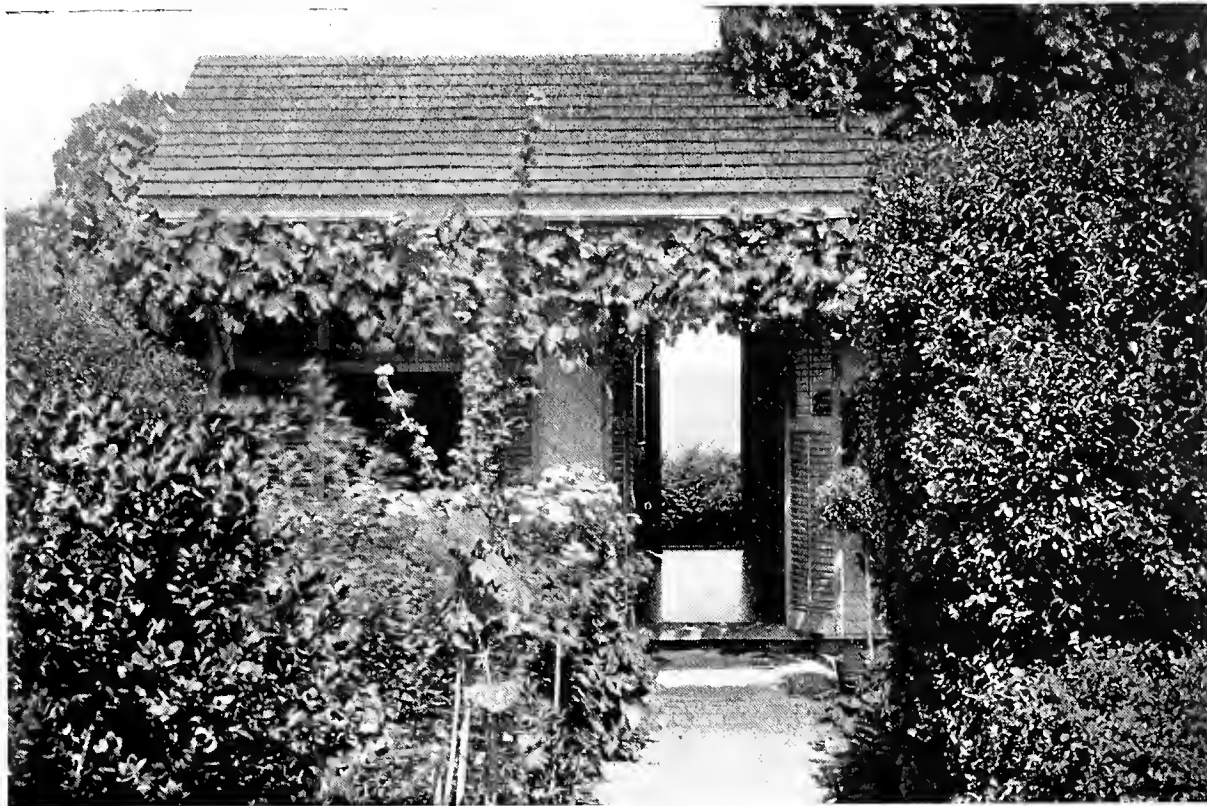
Measured and Drawn for House and Garden, September, 1901



IN THE MIDST OF THE GARDEN

NORTHCÔTE

Photographed in the Summer of 1898



THE GARDEN DOORWAY

NORTHCÔTE



IN THE MIDST OF THE GARDEN

NORTHCÔTE

Photographed in the Late Summer, 1901



WALK AT THE END OF THE GARDEN



THE HOUSE FROM THE HILLSIDE

through the hall, the countryside spreading below in the blue distance. A few more steps and a glance toward the other side of the garden leads upward over the greensward of the rising hillside spotted with firs and young fruit-trees over which bird-houses are poised at the top of gaunt poles.

The paths which lead through the garden are walled with green, and the high banks of the larger shrubs extend far above one's head. New delights come unexpectedly upon one at every turn, lying in wait, as it were, for those whose real love for thriving plant-life directs prying glances into shadowy depths or, tiptoe, peers over a sunny mass of phlox or larkspur.

As one bows under an arch of spirea or threads shady alleys, new vistas continually unfold. These are of short length within near-by green, but always they open into that hazy distance which is a universal background and a constant contrast to the bright strong colors near at hand. Quiet

nooks invite a rest in the shade of a thicket, and the broad cap of a wood parapet, enclosing the western end of the level space beyond the garden proper, is a brink where one may sit and view the silent panorama below. There an undulating valley stretches

out to the north and west, and roads, dotted with farmhouses, trail across its rich farmland and disappear in clefts between far-off hills.

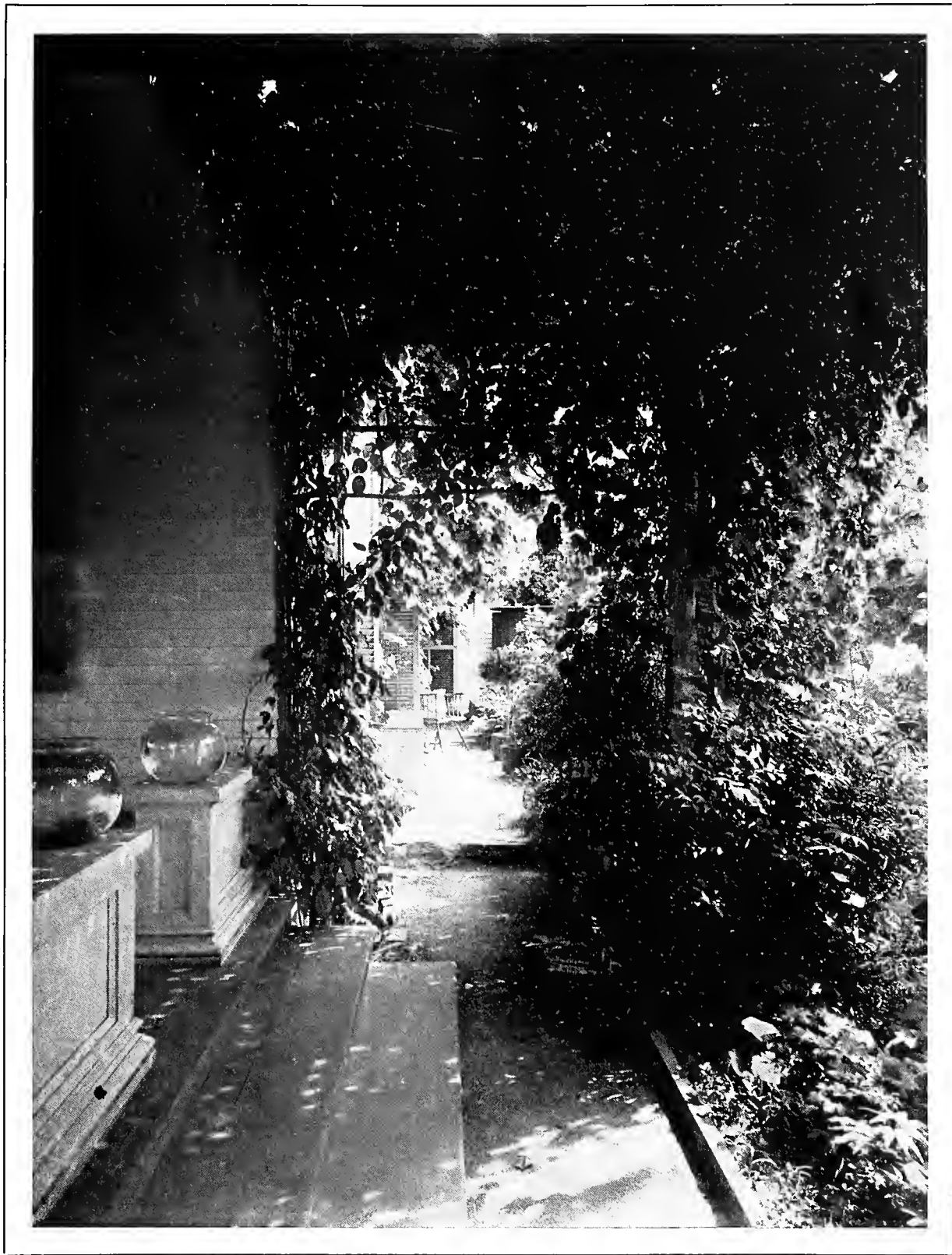
Nearer at hand, in the midst of one of the garden views the owner of Northcôte is discovered in working garb building a bit of wall, trimming a hedge or shifting pots of plants. A cordial greeting, and host and guest repair at once to that favorite spot known as "the pine-tree." This

is at the end of one of the walks of the garden which passes from view of the house and curves around the face of the hill, keeping at all points its own level. Under the stiffly spreading branches of the pine-tree, all important matters of the elevated household



VIEW FROM THE LILY-POOL

Photographed in the Late Summer, 1901



UNDER THE ARBOR

NORTHCÔTE

At Midday, in September



THE WALK TO THE GARDEN

NORTHCÔTE

Hedged with Siberian Arbor-Vita

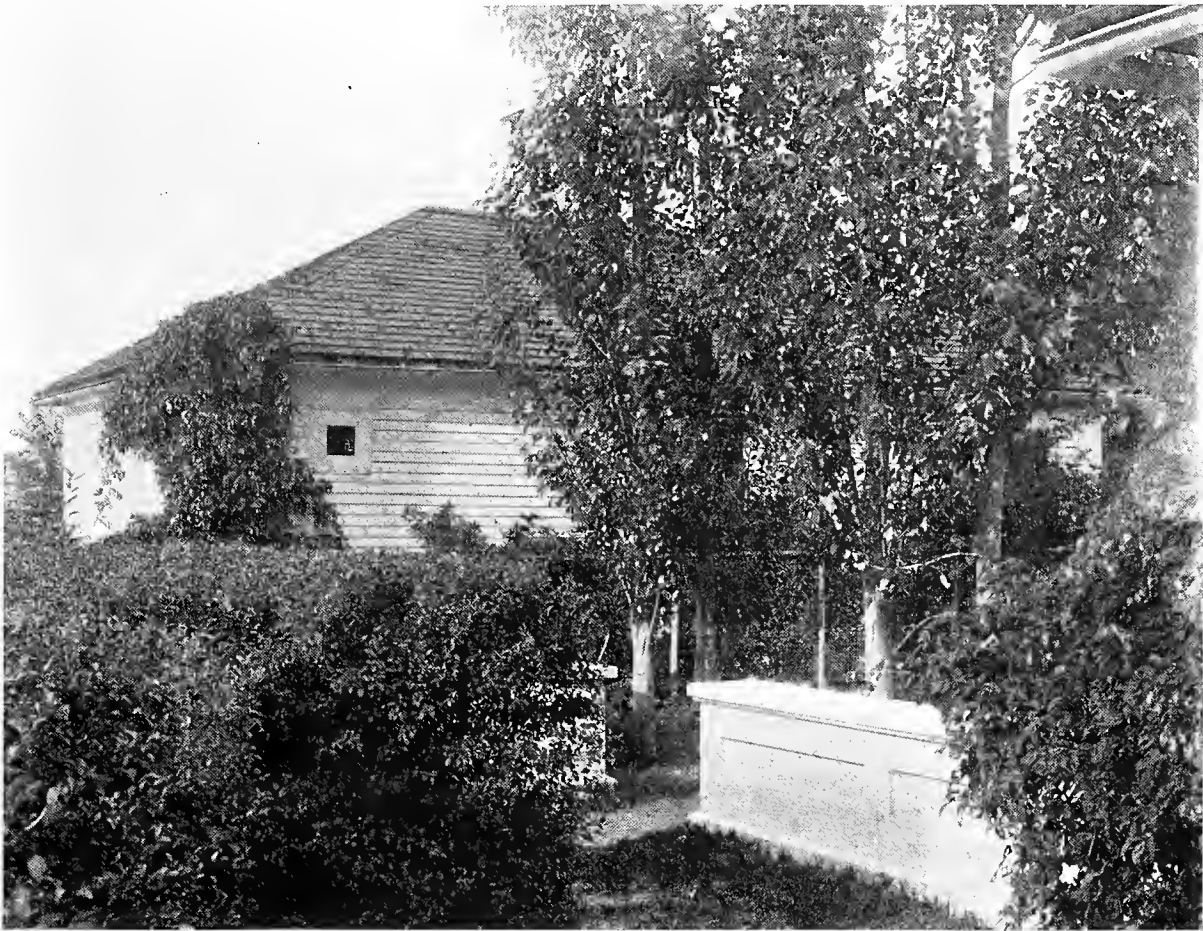
are discussed. The point of view is high for both mind and body, and the whole world seems spread out below,—at least a New Hampshire world. On the wood bench, which curves its back into the hillside, all those that walk in the garden finally rest and watch the changing moods of the day, the march of summer clouds shadowing the landscape below. The cool shade is welcome on warm days; and even in winter, the pine-tree's gaunt branches shelter the spot from the heaviest of snow drifts that else-

where bury the hedges and garden and limit outdoor promenades to a single trail to the barn.

Just as all the parts of this charming place combine to make a delightful harmony, so are Northcôte and its owner a unity. A retired artist without the beautiful surroundings which a keen mind and refined senses require, would be as difficult to imagine as the creation of this place without that constant personal interest, the loving care and the actual handiwork of one who has been from

the beginning its leading spirit. The owner's nature is reflected everywhere in all the details of the house and grounds. Thus the individuality of the place is indissolubly established. Modest retirement is the note which pervades it. Simplicity and absence of pretence are everywhere apparent. The house itself is neither large nor elaborate; but the house when finished was only a bare form,

intime character in which all the beauties of the garden culminate, and to which a certain irregularity gives interrupted views adding the charm of the unexpected. It is a place to walk in, to live in, and be happy in, unconventional in its planting, easy in its growth and free from foreign objects which any native house gardener of these last hundred years would have scorned.



BEYOND THE STUDIO

NORTHCÔTE

around which all the natural charms of the place have since been carefully trained by a patient growth. Even the garden, which in our pride we often put in front of our houses to dazzle the approaching stranger with the utmost we can muster, is here concealed well within those exterior parts of the house which first meet public view. Nor at last does it spread out in meretricious show before a terrace or a drawing-room window. Great formality has been avoided to gain that

Moreover this home has suffered no second-handed tending by which an owner directs his servants to carry out his wishes. Beyond the house itself, built from designs of Mr. Wilson Eyre and finished about Christmas 1893, there is nothing at Northcôte which has not been carried out under the enthusiastic eyes and supervision of its owner. He has set the plants with his own hand; furniture and bookshelves have been made by him; he has painted walls and doors in



UNDER THE PINE-TREE

NORTHCÔTE

beautiful harmonies. Building a wall he admits to be his particular weakness; and his contemplated additions to the present plan comprise untold dreams of stone steps and parapets laid by himself in cement which shall surpass all others for its speedy and relentless setting. Strolling about the garden and the open level toward the west, long councils he will hold with an interested friend upon the best manner of draining a troublesome corner of soil, a rigid means of framing for wooden parapets and the best timber for this or that



WALK TO THE GARDEN

November, 1899

purpose or exposure, for timber is, after all, the principal building material of this New Hampshire country, and Northcôte is but one of the places where its satisfactory application for use and beauty can be seen. Soon a call for dinner is heard and the meal is found awaiting on the porch. As we eat, ground squirrels slip in and out of the bushes near by; and some in their boldness come upon the porch and approach a chair, while a pause in the talk is filled with a catbird's strain.

After dinner comes an hour of pleasant

lounging in the study. The sounds of birds and insects lull to sleep whoever throws himself on one of the divans under the windows. An arbor bearing actinidia, Virginia creeper and wild grape screens the window from the afternoon sun, and fresh breezes enter the room from the open north. A portfolio of views of the place, taken at different periods in its history, is a part of the library. There are the large pictures looking toward the house from the lily-pool and another in the midst of the garden, both taken in 1898, three years after the first planting; then follow that of a girl resting on the parapet beyond the pool, taken a year later, and the snow scene taken in November, 1899. Future

guests may now find other views photographed for this article in September, 1901. These show the garden after a growth of six years. The process of change is still going on; for the one who is ever watchful of the garden's variations has new schemes for transplanting some of the flowers or casting out certain others. This transformation is already under way.

The new greenhouse is next inspected and

details of construction are discussed. A cedar tank is being installed for additional water supply and space for a small aviary has been marked out. A walk beyond the greenhouse toward the top of the hill affords a new impression of the entire arrangement of the place and reveals the reason in its name. We see the house below us, set upon the north side of the hill, and the garden in a level space

made between the house and the ground sloping rapidly toward it. Thanks to a custom at North-côte—another outdoor meal on the porch is enjoyed at supper-time. As the daylight fails, the valley below would be but a memory were it not for the lights which twinkle from the distant



THE HILLSIDE SNOW-BOUND

November, 1899

farm-houses. Often the cool air of the hills, even in summer, requires an open fire in the study, whither the company repair for reading or music. The hours of the household are country hours and bedtime comes early. Guests for the night are guided to cheerful, simply furnished rooms by old-fashioned English candlesticks,—and the bracing air inhaled all day brings complete rest.



THE PARAPET AT THE WEST

THE TREATMENT OF CITY
SQUARES.—I.

WHAT is the function of the city square, triangle, open space? By common consent the municipality is better for these oases. Towns and cities are locating them as opportunity offers; but the task has never been developed into a science. Yet there must be some general principles underlying their arrangement. These ought to form one of the most interesting chapters in the "Science of Modern City Building;" for how complex are the uses to which we put them, how various are the sites which are granted to them! Indeed, the squares can hardly be discussed under a single head. There are the spaces in a crowded business district, most frequently before a public building; there are the spaces in the residence quarters, formed by the convergence of streets at irregular angles, or distinctly set apart for areas of beauty or

for children's pleasure grounds; and there are the spaces frequently placed before railroad stations. Each group may well demand a consideration peculiar to itself.

As yet, be it observed, the spaces have not even a generic name, unless it be that cumbersome and indefinite title, "open space"—which might be street, or river, or back yard, quite as well as the thing that is meant. We take them, too, as we find them, usually, three-fourths of them not purposely created, but found existent through fortunate miscalculations or irregularities in the urban topography. And then we do with them what the whim of the moment dictates—perhaps to change our minds after a decade, in cases of some success, perhaps to wish we had decided on other treatment before the work is finished. For we fill in our open space as if it were a blank area on a wall that we were attempting to "decorate" or "treat" without a thought of the wall around it, without



THE PIAZZA DELLE ERBE

VERONA

regard for its possible harmony, for its purpose, for its connection with the building. Fancy our doing that! We would be clapping a poster where there ought to be a mural painting, we would be painting delicately where a passage was to be, or we would be leaving bare a space in the midst of a thickly-figured wall. We do the like of all these things in treating the open spaces of our cities.

Let us consider the first group to

see what rules may guide us in its handling.

So far as a clearing among the crowded streets of a town had conscious design, instead of accidental origin, it was fixed primarily as a market. The Piazza delle Erbe in Verona is to-day a good example of the principle—the white umbrella-awnings of its



THE PIAZZA VITTORIO EMANUELE (PIAZZA MAGGIORE)

FORLÌ

countless booths quivering in the breeze until, as one looks down upon it, it is like a sun-flecked, shimmering sea. In other Old World cities one may often find the space around the cathedral thus in use. But once the community has felt the impetus of modern ideas in city building, the market is swept aside into its proper place where the traffic of the way flows before, rather than through, it. Then arises the first problem of the distinctly "city" square. The suddenly disused space is in a crowded portion of the city, is comparatively roomy, and is generally before an important public building—governmental or religious—whose strong and permanent attraction of the people accounted for the market's location there. The travel through the square is considerable.

In determining the treatment to be here adopted, three things should be considered: first, the traffic's accommodation and its convenience; second, the character of the neighborhood as a whole and how its monotony may be relieved by this opportunity; third, what is required for the harmonious setting of such of the abutting architecture as may be deemed fairly permanent. Such architecture is likely to include the public building.



THE PIAZZA DI S. CROCE

FLORENCE



THE PIAZZA OF ST. MARK, *From the West*

VENICE



THE PIAZZA OF ST. MARK, *From the East*

VENICE

TRAFALGAR SQUARE, *From the South*

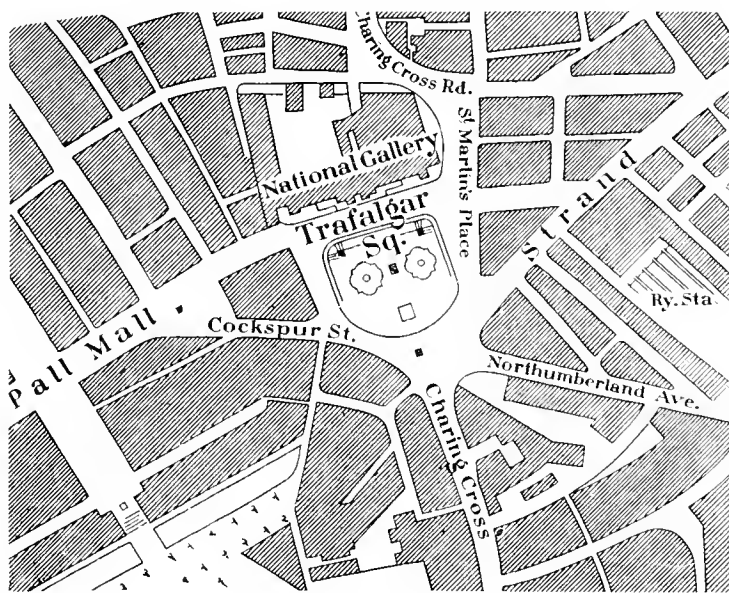
LONDON

In the consideration of this latter point even something more than a "harmonious" setting may be sought. The square will occasionally give an opportunity for terracing, or for balustrades, that will make a fine approach without trespassing too severely on precious space. In one of the papers of the recently issued report on "The Improvement of the City of Washington," there is this suggestive comment: "In many cases the approaches to a simple inexpensive structure exalt it above a pretentious, but undeveloped, neighbor, and in any scheme for the embellishment of a city too much stress cannot be laid on these important accessories to the higher architectural achievements." As clearly, again, if there be planting in such a square, the paths must not be circular, but

diagonal, so affording the short cuts that will accommodate the traffic and not lengthening courses in order that a few more flowers may be planted. Flowers growing under conditions that compel the hurried traveler to make a detour around them exasperate rather than delight. Similarly, if a monument or fountain is to adorn the square, it must be in scale and must not occupy too much ground. A hundred examples illustrating the wise and

unwise treatment of the squares that are thus essentially urban come to mind.

In front of Santa Croce in Florence there is a broad space, made familiar by the statue of Dante. The space is too large for the traffic. The result is a feeling of bareness, and a sense of loneliness for the statue. The sun beats pitilessly on the great empty area, where a few trees, so



PLAN OF TRAFALGAR SQUARE

planted as not to close the vista of the church, would vastly enhance the beauty of the spot, would relieve the monotony of the neighboring streets, and would not impede travel. This is speaking, of course, from the esthetic point of view, for historically the square's emptiness is justified by the games of which it was once the site.

Without so good an excuse, one must find the like emptiness in, for instance, Forli's

not with too much sentiment, as having a relation to public life quite akin to that of the open hearth to private life. It loosens fancy, in the very center of business, and ever bids the spirits rise.

In front of St. Mark's in Venice there is one of the most famous squares in the world. This is bare, only the Campanile and the ornate flagstaffs before the cathedral trespassing upon it. But could there be any-



TRAFALGAR SQUARE, *From the North*

LONDON

Piazza Vittorio Emanuele after the market has been swept aside. In fact, municipal neglect of vegetation is a typical original sin in the cities of garden-like Italy. But the new civic gospel has attacked it; and the original sin, it ought to be added, is partly atoned for by the constant virtue of running water, in fountains. These, to be sure, originally served a useful purpose, were not provided merely for embellishment; but the city fountain has been described prettily, and

thing else here? In a city where there was plenty of room for walking, turf might have been planted to advantage so that the palaces would have looked on a garden-court. But in Venice the space is too precious. As "the focus" of the city, "Keep off the grass" signs would have robbed the people; water here would have mocked them; while merely a decorative pavement, well setting off the architecture, is substituted appropriately for turf and flowers, and in its



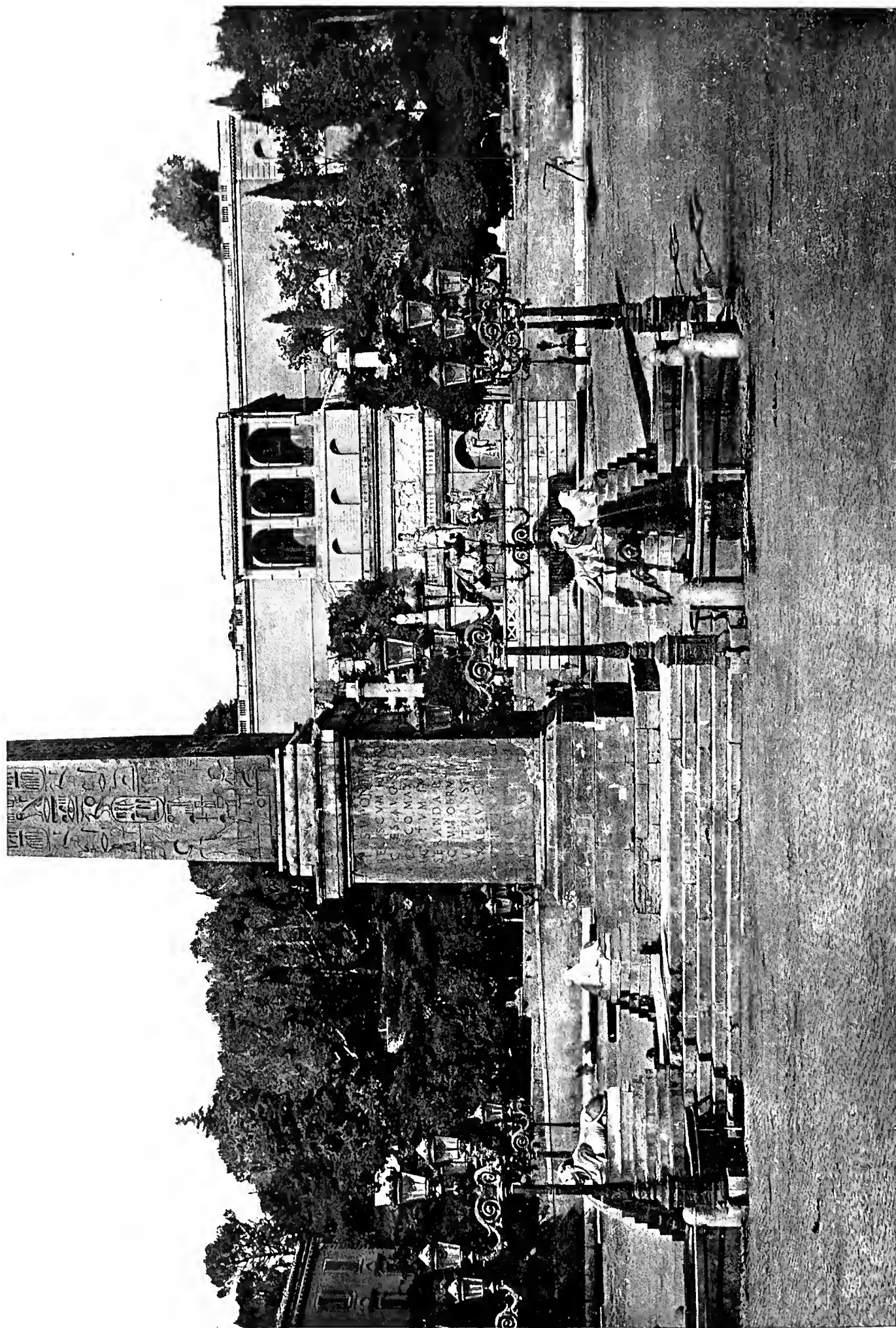
THE FOUNTAINS

TRAFALGAR SQUARE

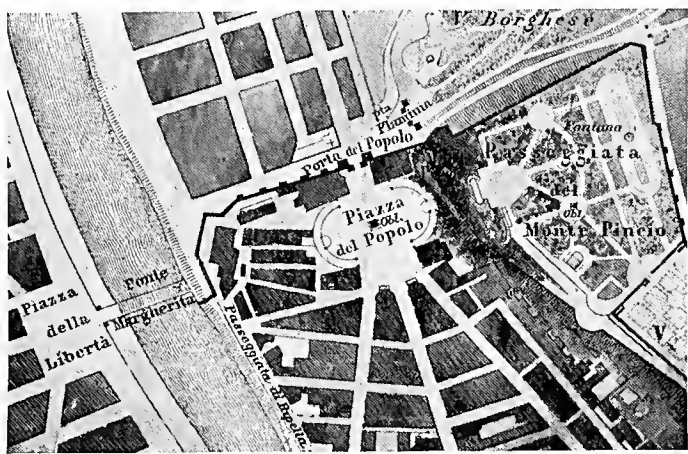
breadth is even more strange to Venice than a garden would have been.

Trafalgar Square, London, is one of the most traveled squares in the world. There are two huge fountains and something like half a dozen statues besides the great Nelson column. But the fountains stand back from the maelstrom of converging traffic, and against the terrace, so that they take no space that is needed for travel; the Nelson shaft, which occupies the center of the square, is tall enough to dominate the whole busy scene and be visible as a landmark from afar; and yet its base is not so large as to trespass—the natural convergence of traffic being before, not around, it. Finally, the smaller statues are placed so as to be decorative adjuncts—in purpose, at least—which are constructively incidental as far as the topography goes. Here, then, is a great space

singularly well utilized. It may be considered as having three divisions: the first, a vestibule crowded with criss-cross traffic and therefore left clear; the second, a richly ornamented setting for the enthroned architecture; the third, the terrace upon the top of which the public building stands. There is here illustration of how important an accessory to its architecture a square may be made without loss of its own independence. And note, also, this about the decoration of Trafalgar Square: in the heart of a vast city, walled by great buildings that are pierced only by busy streets, the roar of traffic pulsing over its every inch, there is no attempt at incongruous “naturalness.” The whole treatment is richly urban, frankly artificial, and yet unique in its superb decorativeness. The very fountains are sculptured, their basins enclosed in geometric copings. And,



THE PIAZZA DEL POPOLO, *Looking toward the Pincian Hill*



PLAN OF THE PIAZZA DEL POPOLO

by the by, what pleasure those basins give! What countless thousands of little Britons have sailed, or are to sail, toy boats under the shadow of the Nelson statue, on these calm waters of Trafalgar Square!

In the fine and well-known Piazza del Popolo in Rome there is one of the most

interesting examples of the square deliberately planned for city embellishment. The whole view from the top of the Pincian Hill which overlooks the Piazza, seeing the bridge beyond and the background of modern buildings, is a lesson in the science of modern civic construction. The Piazza is old, and the obelisk that stands in its center has been there for more than three hundred years, but the treatment of the space is essentially modern. It forms the fitting vestibule to New Rome. Into the square comes the broadened Corso; from it diverge great radial thoroughfares. With the ancient "Hill of Gardens" rising on one side, and tall trees leaving on the other only the vista of the bridge, there is verdure enough in the surroundings to justify a distinctly formal and architectural arrangement. This includes a geometric placing of single lamp-posts and candelabra, and curved bounding

THE PIAZZA DEL POPOLO, *Looking down the Corso*

ROME



THE PIAZZA AND PORTA DEL POPOLO

ROME

walls adorned with sculpture. The whole space is something larger, perhaps, than is needed to-day; but the fast growth of that section of the city across the Tiber, of whose traffic this Piazza is the natural distributing point, makes its size appear a wise provision for the future. The lesson of the square is not so much in its hint for other communities—the situation being peculiar—as in



THE PIAZZA DEL POPOLO FROM THE PINCIAN HILL

its illustration of how perfectly—with what results in nobility of aspect, in harmony to surroundings, and in convenience to the neighborhood—an open space may be treated, if only the problem be given sufficient thought. Potentially, its spaces are the city's jewels.

Let us take one more familiar example of a square in the city's heart. Union Square, New York, has a likeness to



UNION SQUARE

NEW YORK

Trafalgar Square in that it is a point of confluence for lines of heavy travel. A portion of it has been paved as a plaza; but it is the wrong portion. It is not where the heaviest travel meets; but, at the north end, it is bare, as an island where streams have parted. The balance of the square is planted. There are some good trees, a couple of excellent statues that are so badly placed as to receive little but anathemas, and there are flowers, turf, and an incongruous "cottage." Now, on Manhattan Island—with its dreary stone and iron—turf, flowers and trees are to be loved wherever they are seen. Nor at this spot is there any such predominating architecture as to justify the stately formalism of Trafalgar Square. The decision to plant the area—a decision from which, pathetically, New York deviates only twice when given the power of choice, and then only at Park entrances—was sufficiently inevitable not to indicate any departure from haphazard selection. The paths wind circuitously, destroying the square's value for short cuts; and the trees and grass are perfectly neutral, to say the least, as a setting for the hotch-potch architecture that looks down upon

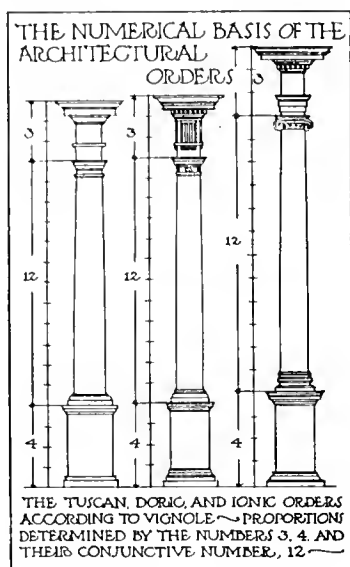
them. In this case, then, only one of the three considerations that should determine the treatment of a square in the business district of a city was respected. The planting offers an urban variety, and that is welcome enough to make the square loved; but as far as city building is concerned as a science, Union Square has the appearance of "constructed ornament," instead of that inevitableness which is its right.

In crowded neighborhoods the accommodation of traffic should be ever the first consideration if ornament be desired, for what is the ornament that does not please? And then in determining the style of embellishment, a large view should be taken. City beauty requires not isolated jewels, no gem that shall not be better for its setting as plainly as the setting shall be better for the jewel, and none that shall not have a clear relation to the city as a whole. These are simple rules in the telling. It would seem that they scarcely required recital; but who has formulated them and where have they had a conscious adherence? The Science of city building must be put into plain writing if we would advance. We must look here and must look there, and according as things have been done, well or ill, must choose our course and lay down such general principles as we may. The square in the city's heart is a more complex problem than at first appeared. It will be necessary in other papers to consider other kinds of squares. With other purposes and other surroundings there will develop other rules.

Charles Mulford Robinson.

THE ARITHMETIC OF BEAUTY.¹

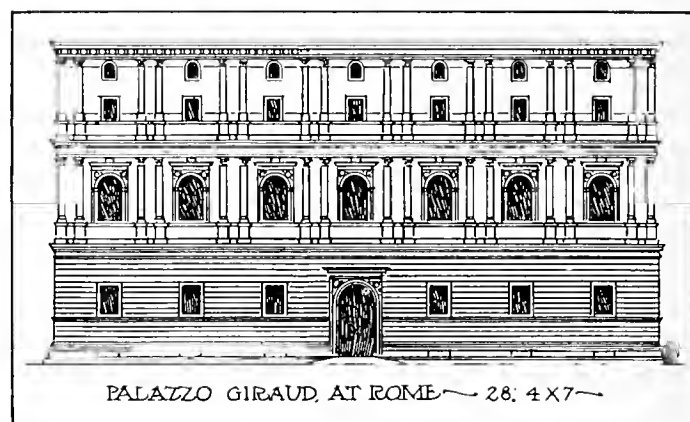
ALTHOUGH architecture is based primarily upon geometry, it is possible to express all spatial relations numerically, for arithmetic and not geometry is the universal science of quantity. The relation of masses one to another, of voids to solids, and of heights and lengths to widths form ratios; and when such ratios are simple and harmonious, architecture may be said to "aspire towards the condition of music." The



trained eye, and not an arithmetical formula determines what is, and what is not beautiful proportion. Nevertheless the fact that the eye instinctively rejects certain proportions as unpleasing, and accepts others as satisfactory is an indication of the existence of laws of number, not unlike those which govern musical harmony. The secret of the deep reasonableness of such selection by the senses lies hidden in the very nature of number itself, for number is the invisible thread on which the worlds are strung,—the universe abstractly symbolized.

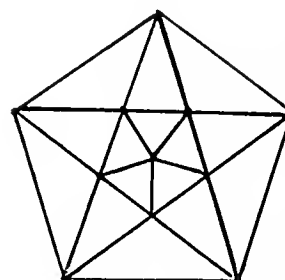
Number is the within of all things,—the "first form of Brahman." It is the measure of time and space; it lurks in the heart beat and is blazoned upon the starred canopy of night. Substance, in a state of vibration, that is, conditioned by number, ceaselessly undergoes the myriad transmutations which produce phenomenal life, becoming in turn sound, heat, light, and electricity. Elements separate and combine chemically according to numerical ratios. "Moon, plant, gas, crystal are concrete geometry and number." To the Pythagoreans, and the ancient Egyptians, from whom the former perhaps derived their philosophy, numbers were possessed of sex, odd numbers being conceived of as masculine,

or generating, and even numbers as feminine on account of their infinite divisibility. Harmonious combinations were those involving the marriage of a masculine and a feminine number,—an odd number and an even. Number proceeds from unity towards infinity and returns again to unity as the soul, defined by Pythagoras as a self-moving number, goes forth from, and returns to God. These two acts, one of projection, and the other of recall,—these two forces, centrifugal and centripetal,—are symbolized in the opera-



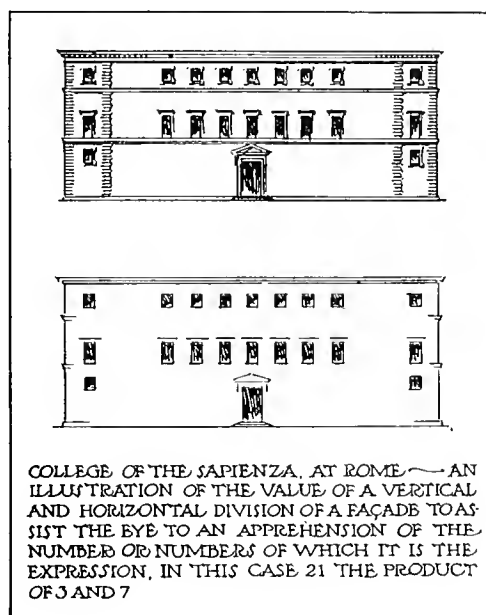
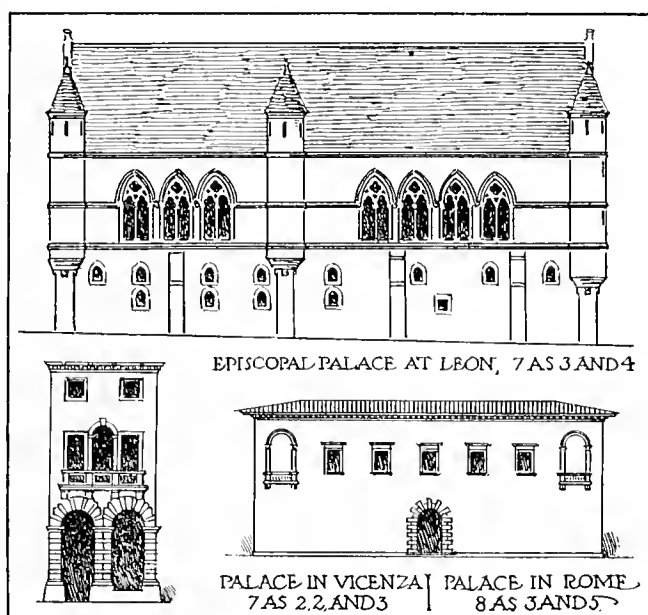
tions of addition and subtraction. Within them is embraced the whole of computation; but because every number, every aggregation of units, is also a new unit capable of being added or subtracted, there are also the operations of multiplication and division, which consist in the one case of the addition of several equal numbers together, and in the other of the subtraction of several equal numbers from a greater until that be exhausted.

The progression and retrogression of numbers in groups expressed by the multiplication table gives rise to what may be termed "numerical conjunctions," to coin a phrase. These are analogous to astronomical conjunctions.



The planets, revolving around the sun at different rates of speed, and in widely separated orbits at certain times come into line with each other and with the sun. They are then said to be in conjunction. Similarly, numbers, advancing towards infinity singly and in groups (expressed by the multiplication table), at certain stages of their progression come into

¹ Concluding Mr. Bragdon's series of articles entitled:—"The Beautiful Necessity: being Essays upon Architectural Esthetics," begun in the January number of *HOUSE AND GARDEN*.



relation with one another. For example, an important conjunction occurs in 12, for of a series of twos it is the sixth, of threes the fourth, of fours the third, and of sixes the second. It stands to 8 in the ratio of 3 : 2, and to 9 of 4 : 3. It is related to 7 through being the product of 3 and 4, of which numbers 7 is the sum. 11 and 13 are not conjunctive numbers. 14 is so in the series of twos, fours, and sevens; 15 is so in the series of fives and threes. The next conjunction of 3 and 4 and their first multiples after 12 is in 24, and the next following in 36, which numbers are respectively the two and three of a series of twelves, each end being but a new beginning.

It will be seen that this discovering of numerical conjunctions consists merely of resolving numbers into their prime factors, and that a conjunctive number is a common multiple; but by naming it so, to dismiss the entire subject as known and exhausted is to miss a sense of the wonder, beauty, and rhythm of it all, a mental impression analogous to that made upon the eye by the swift glancing balls of a juggler, the evolutions of drilling troops, or the intricate figures of a dance, for these things are number, concrete and animate in time and space.

The truths of number are of all truths the most interior, abstract, and difficult of apprehension, and knowledge becoming clear, definite and certain, to the extent that it can be made to enter the mind through the channels of physical sense, it is well to

accustom oneself to conceiving of number graphically, by means of geometrical symbols rather than in terms of the familiar Arabic notation. This, though admirable for purposes of computation, is of too condensed and arbitrary a character to reveal the properties of individual numbers. To state, for example, that 4 is the first square, and 8 the first cube conveys but a vague idea to most persons, but if 4 be represented as a square enclosing four smaller squares, and 8 as a cube containing eight smaller cubes, the idea is apprehended immediately and without effort. 3 is, of course, the triangle; the irregular and vital beauty of the number 5 appears clearly in the hept-alpha, or five-pointed star, the faultless symmetry of 6, its relation to 3 and to 2, and its equal division of the circle are portrayed in the familiar hexagram known as the Shield of David. 7 when represented as a compact group of circles reveals itself as a number of singular beauty and perfection, worthy of the important place accorded to it in all mystical philosophies. It is a curious fact that when asked to think of any number less than 10, most persons will choose 7.

Every form of art, though primarily a vehicle for the expression and transmission of particular ideas and emotions, has subsidiary offices, just as a musical tone has harmonies which render it more sweet. Painting reveals the nature of color; music of sound in wood, in brass, and in stretched strings; architecture shows forth the qualities of light, and the strength and beauty

of materials—brick, stone, iron and wood. All of the arts, and particularly music and architecture, portray in different manners and degrees the truths of number. Architecture does this in two ways, esoterically, as it were, in the form of

harmonic proportions, and exoterically in the form of symbols which represent numbers and groups of numbers. The fact that a series of threes and a series of fours mutually conjoin in 12, finds an architectural expression in the Tuscan, the Doric, and the Ionic orders according to Vignole, for in them all the stylobate is four parts, the entablature 3, and the intermediate column 12. The affinity between 4 and 7 revealed in the fact that they express the ratio between the base and the altitude of a right-angled triangle of 60 degrees, and the musical interval of the diminished seventh, is architecturally suggested in the Gothic chapels of Windsor and Oxford whose widths and lengths are in the proportion of 4 to 7, and it finds complete objective expression in the Palazzo Giraud which is four stories in

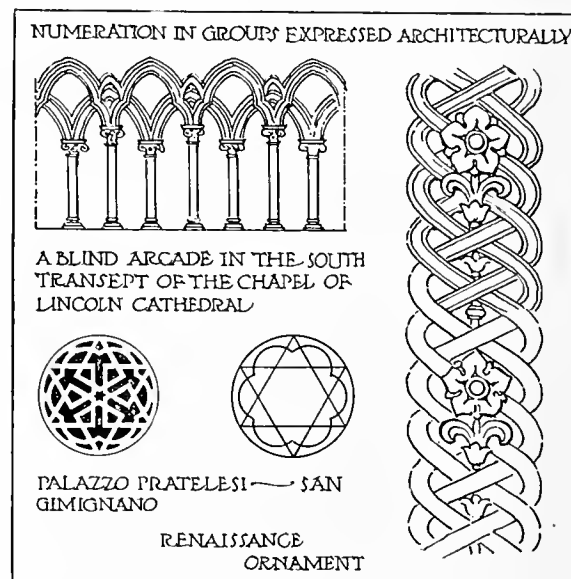
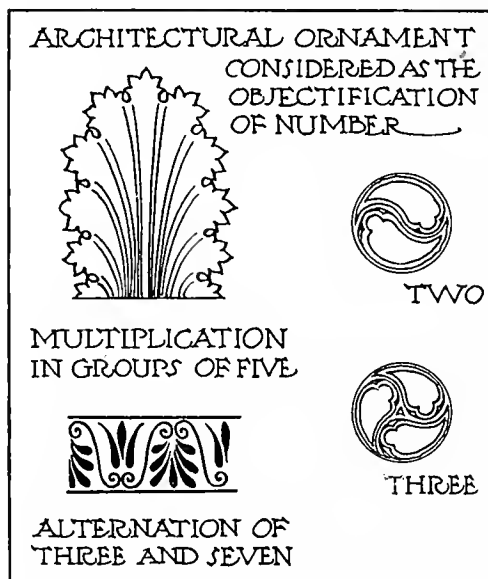
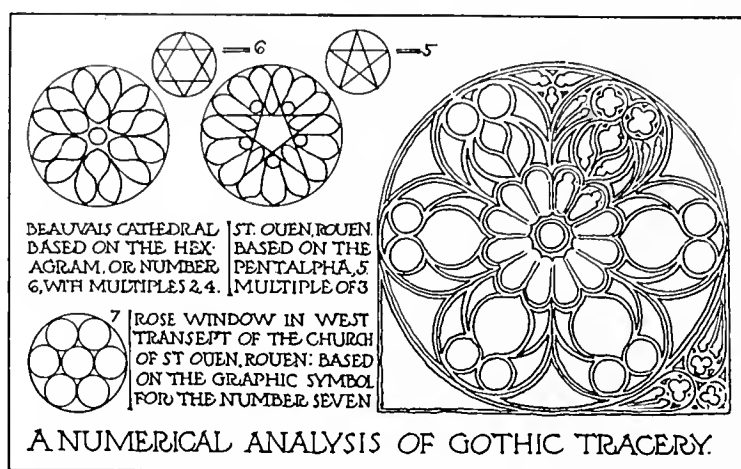
height with seven openings in each story.

Every building is a symbol of some number or group of numbers; and other things being equal, the more perfect the numbers involved, the more beautiful will be the building. 3, 5, and 7 are the numbers of most frequent occurrence, and they are the most satisfactory, because being of small quantity they are easily grasped by the eye, and being odd they have a center or axis, so necessary in every architectural composition. Next in value are

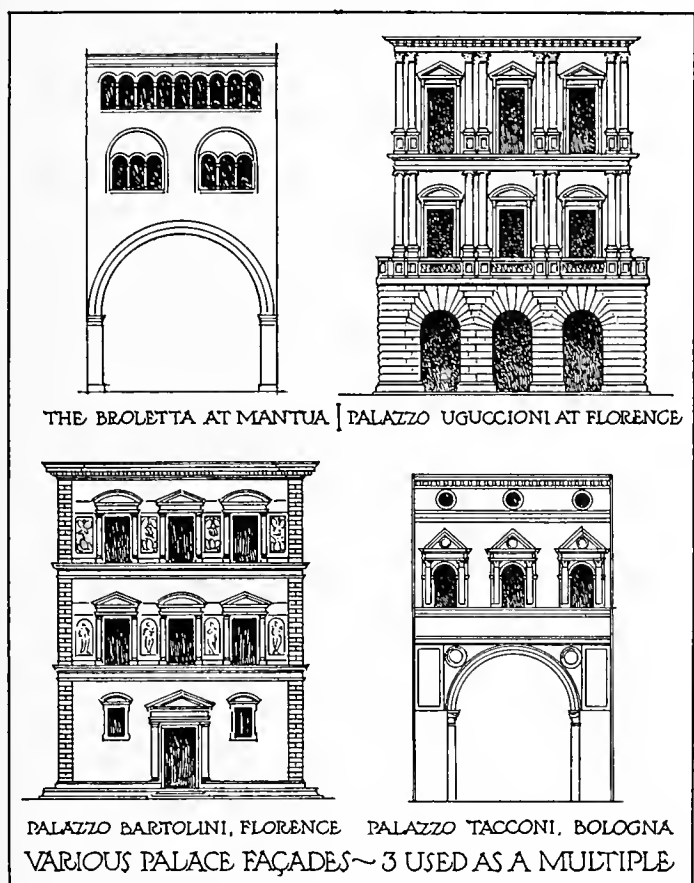
lowest multiples of these numbers and the least common multiples of any two of them, namely: 6, 9, 12; 10, 15, 20; 14, 21, 28; etc., because the eye, with a little assistance, is able to resolve them into their constituent factors. It is part of the art of

architecture to render such assistance, for the eye counts always, consciously or unconsciously, and when it is confronted with a number of units greater than it can readily resolve, it is refreshed and rested if these are so grouped and arranged that these units reveal themselves as factors of the higher quantity.

There is a *raison d'être* for string courses other than to mark the position of a floor on the interior of a building, and for quoins and pilasters other than to betray the presence of



a transverse wall. These sometimes serve the useful purpose of so subdividing a façade that the eye estimates the number of its openings without conscious effort and consequent fatigue. The tracery of Gothic rose-windows forms perhaps the highest and finest architectural expression of number. Just as thirst makes water more sweet they confuse the eye with their complexity only to more greatly gratify it by revealing the inherent simplicity in which this complexity had its origin.



Sometimes, as in the case of the Venetian Ducal Palace the numbers involved are too great for counting, but other and different truths of number are celebrated; for example, the multiplication of the first arcade by 2 in the second, and this by 3 in the cusped arches, and by 4 in the quatrefoils above them.

Seven is proverbially the perfect number. It is of a quantity sufficiently complex to stimulate the eye to resolve it, and yet so simple that it can be so resolved at a glance. As a center with two equal sides it is possessed of symmetry, and as the sum of an odd and even number (3 and 4), it has vitality and variety. All these properties a work of architecture can variously reveal. Fifteen, also, is a number of great perfection. It is possible to arrange the first 9 numbers in the form of a square so that the sum of each line, read across or up and down, will be 15. Thus:

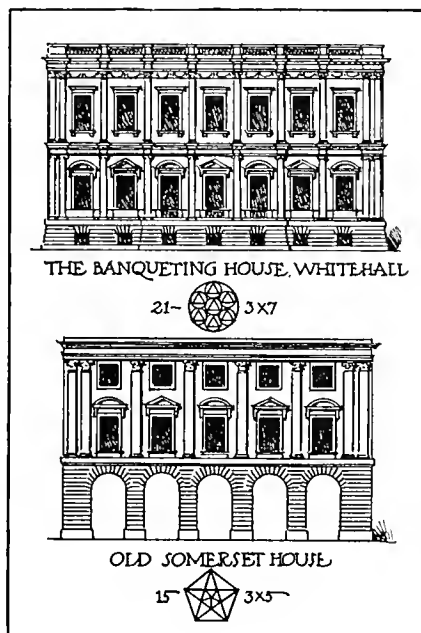
$$\begin{array}{rrr}
 4 & 9 & 2 = 15 \\
 3 & 5 & 7 = 15 \\
 8 & 1 & 6 = 15 \\
 \hline
 15 & 15 & 15
 \end{array}$$

Its beauty is portrayed geometrically in the accompanying figure which expresses it, being

15 triangles in groups of 5. Few arrangements of openings in a façade better satisfy the eye than three superimposed groups of five. May not the secret of this satisfaction dwell in the intrinsic beauty of the number 15? This is a question which would

be decided differently by different persons, for the perception of numerical beauty is largely intuitive.

In writing short, detached essays of this sort an author can represent his subject from one side only. If the present writer



has seemed to insist on forcing some significance from everything he has brought to the reader's attention, it is partly because he has been obliged, by the necessity of the case to write in that spirit. What he could not vivify he has been forced to omit. In conclusion, therefore, it is perhaps well that the reader be reminded that these are the byways, and not the highways of architecture into which he has been led,—that the highest beauty comes always, not from beautiful numbers, nor from likenesses to Nature's eternal patterns of the world, but from utility, fitness, economy, and the perfect adaptation of means to ends. This truth is usually exploited in the literature of architecture, to the exclusion, it has seemed to the writer, of every other. These essays have been attempted in the hope of being able to show that along with this truth there goes another: that in every good work of architecture, in addition to its obvious and individual beauty, there dwells an esoteric and universal beauty, and that by taking more thought of this beauty, we may learn to build more worthily.

Claude Bragdon.

REMODELING AN OLD ITALIAN GARDEN IN THE EIGHTEENTH CENTURY.

TRANSLATED FROM THE ITALIAN.

In his book entitled *Vecchie Storie*, Signor Pompeo Molmenti has given a few short extracts from a letter to His Excellency the Cavaliere Daniele Andrea Dolphin, Venetian Ambassador to the Court of France from 1780 to 1786. Luigi Ballerini, a general agent and superintendent, informs his employer of the various details of the work in the garden of the Villa Mincana,¹ in the Padovano, near Venice.

The Cavaliere must have been very enthusiastic over the new ideas as to gardens, to have ordered such extensive changes in his own at a time when he had been absent for three years and was to remain away for yet three more. Perhaps he wished to astonish and outshine his neighbors, and be the first to start the new fashion at home while he was still at the fountain-head of innovation and could send complete plans and descriptions in order to have it all ready to enjoy on his return.

Taste in the arrangement of gardens was as much influenced by the new ideas of the latter part of the eighteenth century as were the habits and manner of living. The frivolous, pleasure-loving Queen of France, was eager in the pursuit of novelty of every kind, and cared little for what was destroyed could she only succeed in escaping even the appearance of restraint, etiquette and formality. The old theory that an architectural setting with a geometrical plan, long straight lines of clipped trees and regular flower beds was necessary to give a house a natural appearance and make a suitable transition between it and the surrounding landscape, was one of the first to be attacked under the new order of things. Formality of any kind was a thing of the past. What was then known as the English garden with its grove-like appearance, winding paths and irregular stretches of lawn lent itself beautifully to the new ideas. In the very first year of

her reign, Marie Antoinette asked for and obtained the gift of the Little Trianon and ordered plans for substituting a more modern garden in the new fashion, in place of the formal and botanical ones then surrounding the small palace.

The Comte de Caraman had planted an English garden at Roissy which was greatly talked about in the fashionable world and also a charming one behind his hotel in the Rue St. Dominique, Paris. The Queen actually visited the latter before finally deciding to destroy the old Trianon gardens. Drawings made by the Comte were accepted, but were altered a few years later by the architect Mique. Work began at once but did not progress rapidly owing to the lack of funds. The more serious alterations were only begun in 1779, while the Belvedere was not finished until 1781 and the Swiss Hamlet and Marlborough's Tower not until the summer of 1783. The Ambassador Dolphin was in Paris during the three years of active work and could hardly avoid becoming enthusiastic and wishing to try some innovation and imitation in Italy when the young and attractive Queen was eagerly enjoying the novelty and freedom of the recently discovered pleasures of outdoor life and companionship with nature in her many forms. It is curious however, to see that in spite of ordering his garden to be reconstructed, the Ambassador could not entirely divest himself of the older and more formal Italian ideas. He commanded an English park that "succeeded wonderfully," irregular groves, running streams, artificial rocks and mounts; but the old-fashioned quadrangular ground-plan was left untouched and clipped hedges with niches for statues were replanted, while there was at least one avenue which provided a vista, even though it had an artificial rock at the end. But the letter describes it all very distinctly:

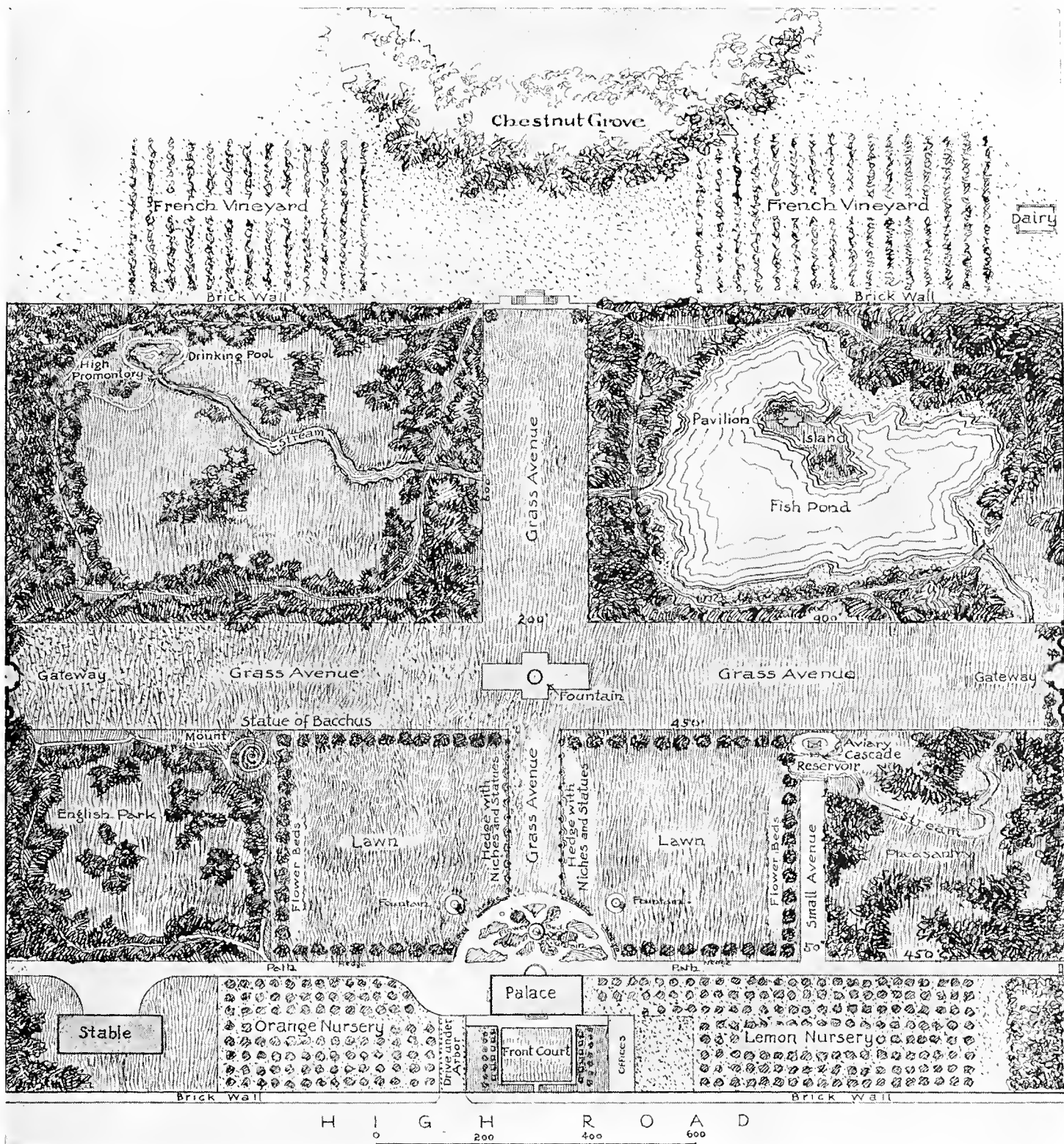
MINCANA, April 28, 1783.

"The garden is all upside down with the work on the fountains and is levelled off in accordance with the designs, so the jets of water towering above everything can now be seen with much greater pleasure. Some irregularities that were defects in the paths have been removed; the hedges are growing much stronger and this year the arches of

¹ Whether Mincana exists at the present day is unknown to the translator. The illustrations for this article were taken from Venetian villas built about the same period as Mincana and are merely used to show the architectural style of the seventeenth century.

many niches for statues will be made in them. The lemon nursery has borne the winter season well. Your Excellency knows that instead of arriving at any goal on descending from the lemon nursery, an uncultivated corner of the garden proper was formerly reached which was unattractive from not having any object of interest. This space

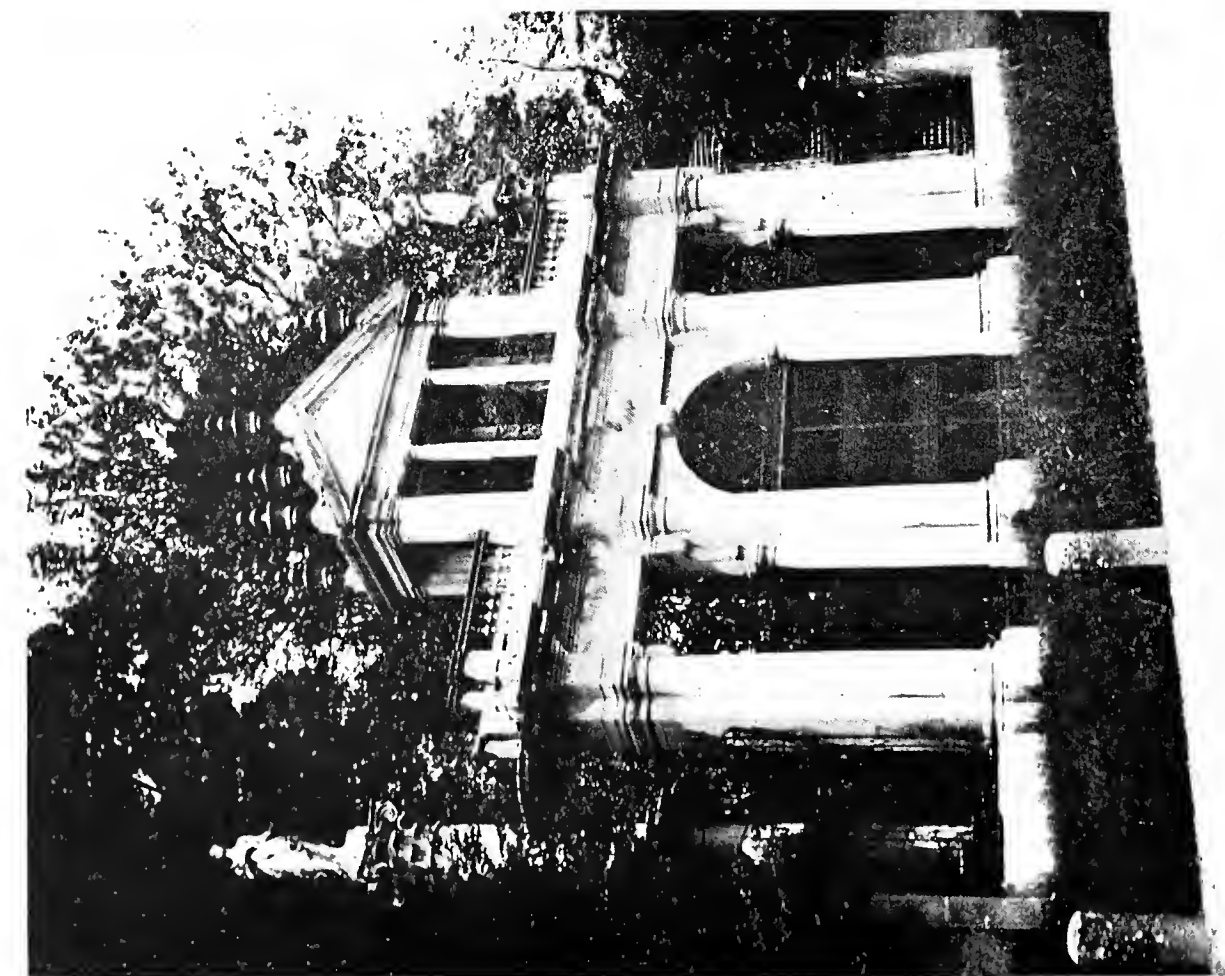
was easily enlarged by setting the wall back, and it has been possible to arrange a grove there which will be a suitable preserve for the rare pheasants that cannot be exposed in such an open space as the garden. At present, on leaving the lemon nursery one enters a small avenue that will be finished at the farther end by a landscape feature formed of



PLAN OF THE VILLA MINCANA GARDEN

Reconstructed by Eleanor G. Hewitt from the Description in the Text

Rendered for House and Garden by F. L. V. Hoppin, Architect



A GATEWAY IN A WALL SURROUNDING A PARK

Spiral Iron Stairs around the Columns at each side lead to the Covered Balcony over the Gate



A LEMON NURSERY

Shewing the Architectural Arrangement of a Wall for a Background

a rugged artificial rock, whence a rushing cascade of water will fall and be collected in a reservoir. An aviary with a cupola for song birds will be placed on top of the rock; an open brook will issue from the reservoir, run through the pheasantry, and flow into the fish pond. Your Excellency will recognize from all this how much more delightful it will be to find so many animate things rather than a statue or a picture; with the murmuring of the water, the singing of the birds, the leafing out of the trees that were so large when planted, and the glimpses of the beautiful pheasants, this sylvan retreat will become a more charming situation for repose than any of those that the poets take so much delight in describing. The grove is already completed, but the cascade is still to be made, unless you should send other commands; the rest of the work is stopped for the time being. A small drawing will show Your Excellency the English park, in the quadrangle in front of the stable, that is so wonderfully successful through the care taken in transplanting such large trees all alive, and owing to their strength, it will be possible to walk there quite freely in a heavy shade in two years' time. The latter is entirely finished, containing even mountainous and exotic plants, and Your Excellency can still further embellish it with a few from America, even though here they are extremely rare and very seldom found. The only things necessary besides all this, will be a pavilion in the Chinese style on the little island, adorned with those elegant trifles and luxuries which Your Excellency knows so well how to order in person, and a few other ornaments scattered with taste among the hedges and little vales. Flowers and sweet smelling herbs are always cultivated below the winding path and are succeeding so delightfully that I should not blush to have Your Excellency see them even at the present time. In carrying out the project of the pavilion Your Excellency will probably also arrange for recesses for various

rustic seats and benches and then a more charming retreat in Summer cannot be desired. On one side the walk commences that formerly led to the labyrinth, but where now is found, as the result of another design, a highly agreeable feature of the garden, formed by one of those mounts with a winding path having one of the old statues restored, a Bacchus, in the centre. The winding path, so easily ascended, is bordered with



AN ORANGE NURSERY

With Wall Architecturally Elaborated

vines, a very suitable decoration to this particular place when they are full of fruit An irregular grove winds around the other quadrangle leaving a large space in the centre where there can be an enclosure for deer and other animals, and a walk encircling it all can be made entirely in the shade. The little brook runs through the centre of this square and makes a drinking pool at the extreme limit for the convenience of the animals; there is a promontory planted with

trees above the pool. When the hedges are grown, the only necessary things to complete everything will be the stockade, the animals, and their wooden house for the winter, and then this will also be a magnificent and charming part of the garden. Issuing from this walk, the chestnut grove that forms the view from the centre of the palace is reached and after that again, the French vineyard. The aviary, which will be ready for use in three years, is placed on the opposite side, and consequently Your Excellency will surely have a many-sided pavilion with several out-looks built, where either while writing, reading, or drinking the milk from the adjacent dairy, (alone or in gracious company), the singing of the birds can be enjoyed and from time to time the pursuit of the game which will certainly be plentiful on account of the fitness of the situation."



A PENTAGONAL PAVILION IN
A VENETIAN GARDEN

Walking for pleasure was evidently unknown in Italy in the eighteenth century, and that the sight of some object of art or interest was the only reason for exertion, is brought out very strongly in this letter, also that true luxury is having every sense pleased, and even the queer kind of sport enjoyed at that time all arranged for in advance.

The nineteenth century fad, the wild garden, is foreshadowed in "the sweet smelling herbs and flowers will always be cultivated near the path." It seems a pity that Signor Molmenti did not see fit to give the entire letter. It would be interesting to know the fate of the other old statues from among which the Bacchus was selected to be restored, and any other details Ballerini thought of writing to the Ambassador.

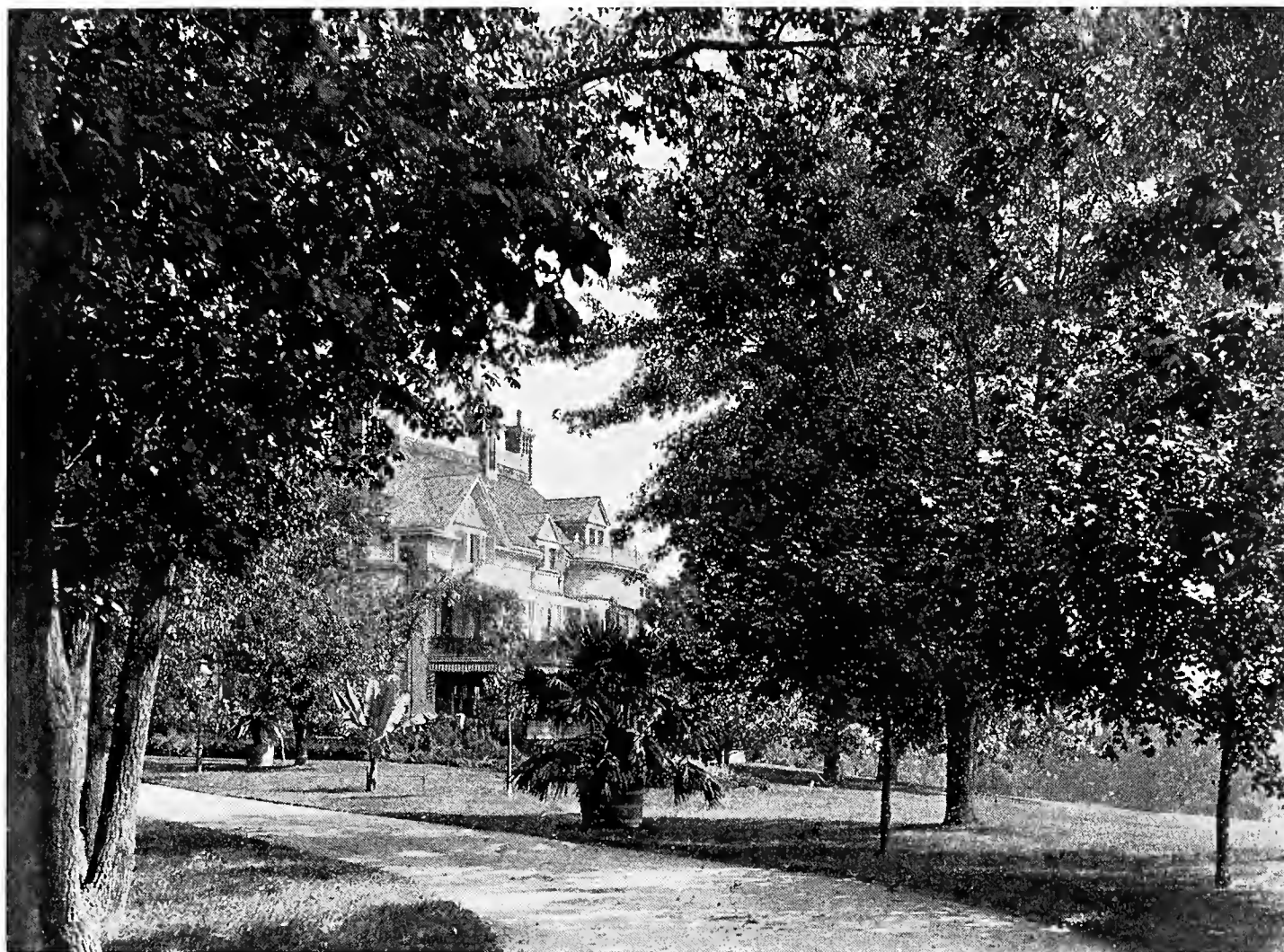
Eleanor G. Hewitt.



TWIN OAKS.

IN the country north and west of the city of Washington but in the immediate vicinity of the National Capital are a number of exceptionally handsome estates, none of them of more than the most moderate size. From the landscape standpoint perhaps the most attractive of these is Twin Oaks, the home of Mrs. Gardiner G. Hubbard. The estate

Bisset, and the results attained are the more remarkable from the fact that at the time of the establishment of this country-seat the sites for the residence, stables and all out-buildings were chosen without thought or regard for the attainment of harmony in the provision of a landscape setting. The entire policy of landscape architecture followed has dictated a close adherence to the natural system.



APPROACH TO THE HOUSE

TWIN OAKS

which has an altitude of about two hundred and fifty feet above the city of Washington comprises fifty-five acres forming a triangular-shaped tract of rolling ground. About twenty acres is occupied by a woodland of oaks, beeches, hickory and other natural hardwoods, and practically all of the remainder of the holding is in lawn.

Of late years great attention has been devoted to landscape gardening at Twin Oaks under the direction of Mr. Peter

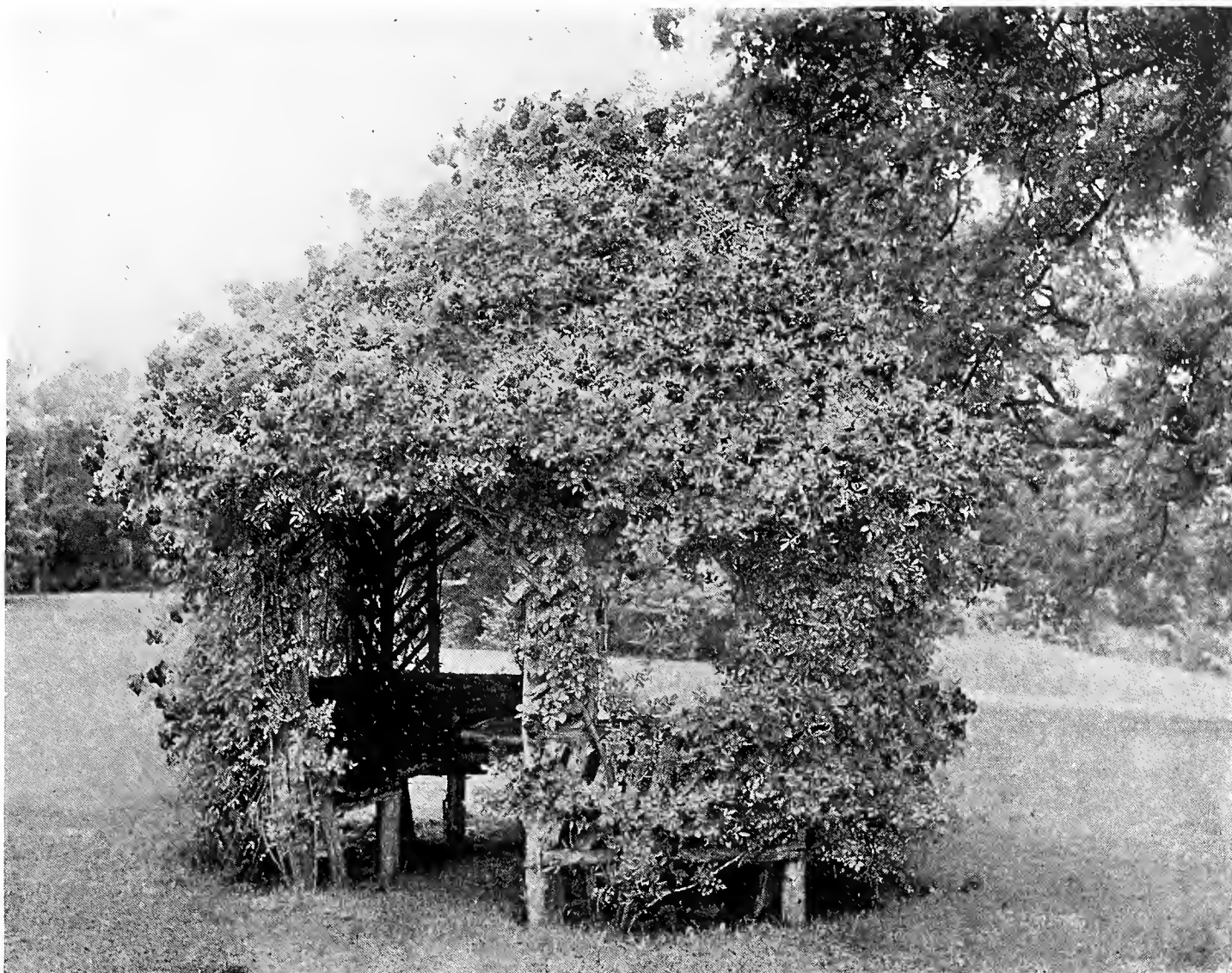
Indeed there is an entire absence of all formal gardening.

The aim has been to introduce on the estate every known variety of hardy shrub and tree; and to that end, frequent extensive importations have been made from all parts of the globe, but there has ever been kept in view as an especial object the desirability of embodying specimens of every variety of ornamental vegetation native to America and embracing everything from trees to wild



WALK FROM THE ROSE GARDEN TO THE GREENHOUSES

TWIN OAKS



A SUMMER-HOUSE, Covered with *Crimson Rambler*

TWIN OAKS

flowers. As Twin Oaks is designed for practically continuous occupancy from April to December and the intensity of the sun's rays in the southern clime renders the sight of extensive gravel roadways painful to the eyes, this material has been utilized only on the two main drives. All the other avenues of communication on the estate are turf drives. These manifest a tendency to appear slightly worn at some seasons of the year; but all things considered, preserve their appearance surprisingly well. Likewise grass paths take the place of all other forms of walks on the estate.

A charming feature of the estate is the rose arbor which affords a connecting avenue between the rose garden (containing two hundred varieties of the flowers) and the conservatories. The arbor is made up of twelve double arches of rustic construction

covered with such varieties as the *Crimson Rambler*, *Memorial*, *Baltimore Belle* and *Queen of the Prairies*. The conservatories to which access is gained through this avenue and which are located several hundred feet from the residence comprise about fifteen thousand square feet of glass. The group of buildings includes rose, carnation and palm houses, a grapery and violet pits, but no definite scheme of arrangement has been adhered to.

At the opposite side of the estate is a simple pergola, consisting of a series of arches designed to afford a shaded path to the subtropical garden and lily-pond. Constituting the central part of the pergola is a Japanese rustic house, covered with Japanese wisteria. Near at hand is a summer-house of rustic cedar covered with crimson ramblers. The water garden is ninety-five feet in length and



"EMPRESS OF CHINA" ROSES

TWIN OAKS



THE WATER GARDEN, *Victoria Regia* in the Foreground

TWIN OAKS

seventy-five feet in width and the depth of four feet six inches affords accommodation for a profusion of water lilies and other aquatic plants.

Most of the lilies are grown in boxes, but the pond at the edges is only from eighteen to twenty-four inches in depth, and here are grown the hardy lilies. The pond holds some magnificent specimens of the *Victoria regia*. The largest leaf grown on the estate measured five feet nine

inches in diameter and easily supported a boy eight years of age, with only a thin board to distribute his weight evenly over the leaf. Surrounding the water garden is a sub-tropical garden or border in which more than forty varieties of plants appear.

Simplicity of design characterizes both entrances to Twin Oaks. On the south where the private roadway leads from Woodley Lane at a point just opposite Beauvoir, the country-seat of Admiral Dewey, the entrance is marked by two stone pillars, while the drive is flanked on either side by a line of evergreens and Norway maples. At the north entrance, which is situated in a

ravine, there are massive walls of rough stone, covered with the many-flowered Japanese rose. The trees constitute one of the chief

glories of the estate. The collection of Japanese evergreens is one of the finest and most complete extant, and there is also an especially creditable representation of Holland evergreens.

The residence at Twin Oaks is a large structure the architecture of which is a modification of the Colonial style. On the

southern front is a commodious sun parlor and directly before the house stand the two immense oak trees from which the estate takes its name. The greater part of the interior of the house, including the great hall is furnished in oak, but the library and dining room are in cherry. The house is situated on a considerable elevation with a broad expanse of lawn in front and a wooded ravine in the rear. The sun parlor and in fact every window in the southern exposure commands a splendid view of the entire city of Washington, the Potomac River and the blue hills of Virginia, beyond.

Waldon Fawcett.



ARCH COVERED WITH "THE MEMORIAL ROSE"

Rosa Wichuraiana



A HOUSE AT GERMANTOWN.
PHILADELPHIA.

Designed by Alfred Cookman Cass, Architect.

The site of this new house was a plot of ground fifty-six feet in width taken from the western end of an old homestead property located about five miles from the center of Philadelphia. Some three hundred feet of lawn lies between the old house and the new. The two properties have been permitted to appear like one, inasmuch as the new house has been built by a member of the family

toward the shade of a splendid ash-tree. The hall and living-room open upon a terrace surrounded by a low hedge and paved with brick. During the summer this terrace is in shade early in the afternoon and is a delightful outdoor living-place. The lawn, a few feet below, offers an exceptional opportunity for a garden, but at present it is felt that the simplicity of the green expanse is an agreeable and sufficient change from the monotony of surrounding pavements, and it will be left for the present as it is.

The porch which adjoins the living-room



FROM THE SOUTHEAST

which has occupied the old place for many years.

As the remainder of the former lawn lay nearly three feet below the street level, the first floor of the new dwelling was set but a trifle above the pavement, so as to give the house the best appearance from the front and also from the lower grade. All the living-rooms face the east and look out across the lawn. The dining-room has an outlook in that direction through generous casements,

is really a sheltered portion of the terrace, and it will be enclosed with glass during the winter months for use as a conservatory or a sun-parlor. For either of these purposes the brick paving will be found quite suitable for it has been laid upon a deep foundation of broken stone and cinders, and dampness has already been proved impossible. The stairway, pantry and kitchen are properly confined to the north and west of the house, and on the second floor this side is occupied by



THE HOUSE FROM THE OLD LAWN



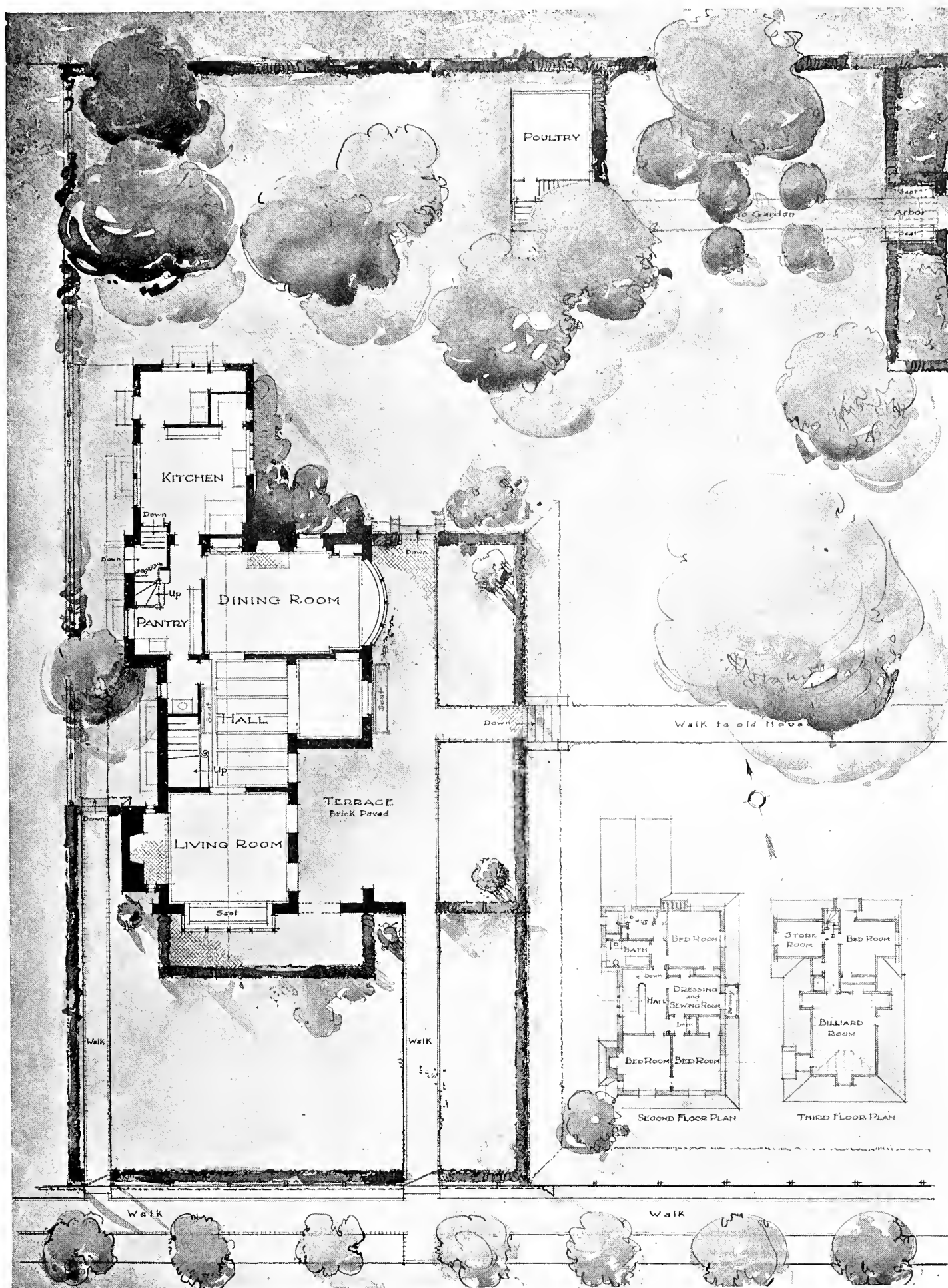
THE FRONT

passageways and the bath-room. A special care was taken to make the servants' quarters convenient in every way, as upon this depends more than is usually admitted the happiness of the household. A stairway of liberal width leads from the pantry to the third floor and in no way disturbs the privacy of the second.

On the west side is the tradesmen's path leading to the kitchen and communicating directly with the cellar by a full vertical door, —an improvement on the customary lean-to hatchway and accomplished by lowering the grade on this side. The adjoining property here having been filled in to the level of the street, a retaining-wall, surmounted by a low iron fence, extends from the large chimney northward to the rear of the lot. This fence will soon be covered with honeysuckle, while a privet hedge and several Lombardy poplars

will complete a distinct boundary-line toward the street. Across the front a simple white picket fence is to be placed in front of the hedge.

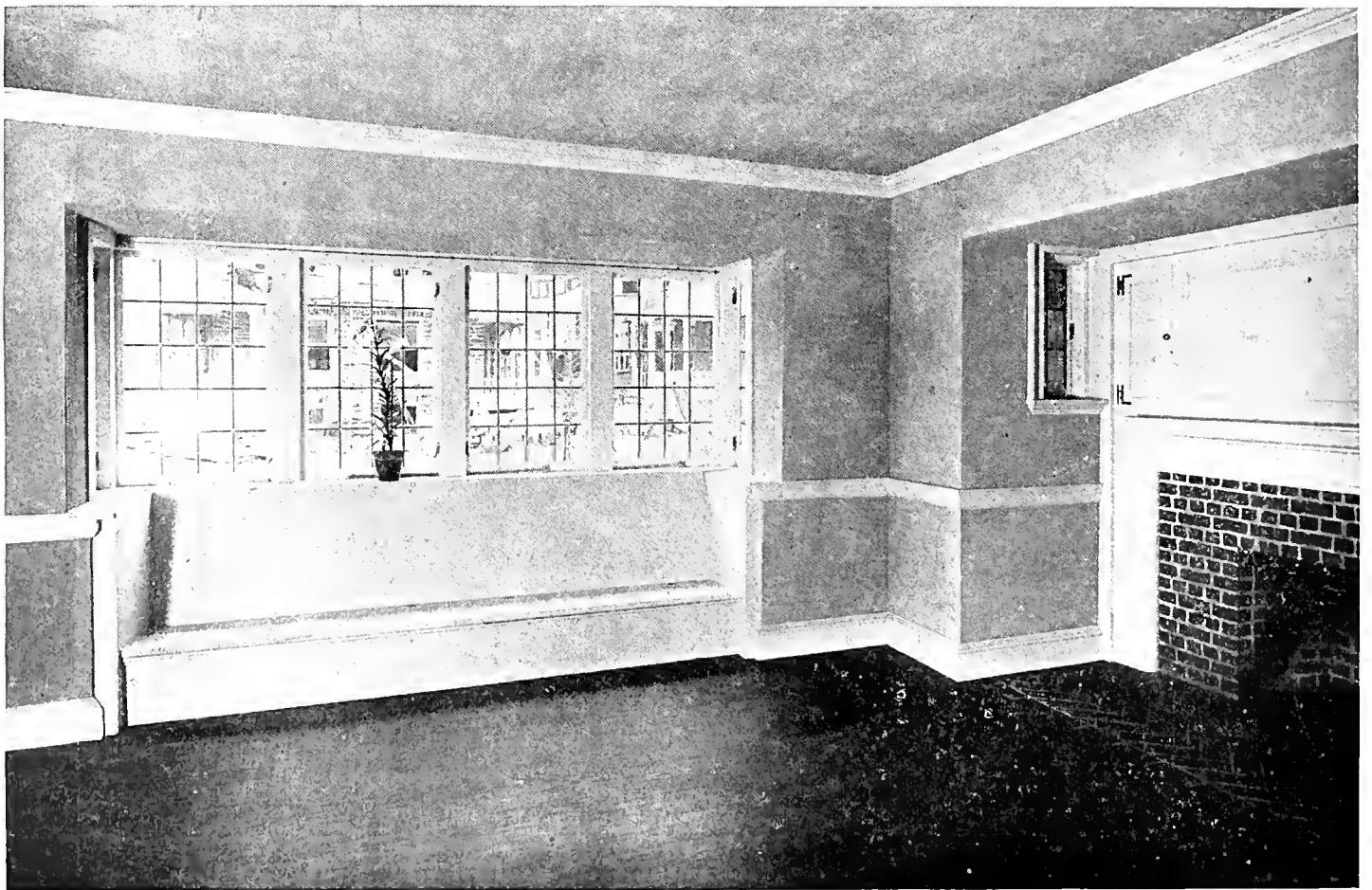
The most pleasing feature of the exterior of the house is its color. The bricks are hand-made and of a rough surface. Their color is a dark red, of varying shades, and they are laid in the English coursing with a mortar of cement and of yellow and gray gravel. The joints are wide, and match in color the light brownish gray and very rough plaster which covers the walls above the first floor. The shutters, belt mouldings and eave rafters are of cypress, and have been stained a very dark brown, while the sash and window trimmings are white, slightly tinted to a warm tone. The largest, roughest and heaviest split cypress shingles from the swamps of Florida have been used for the roof, and



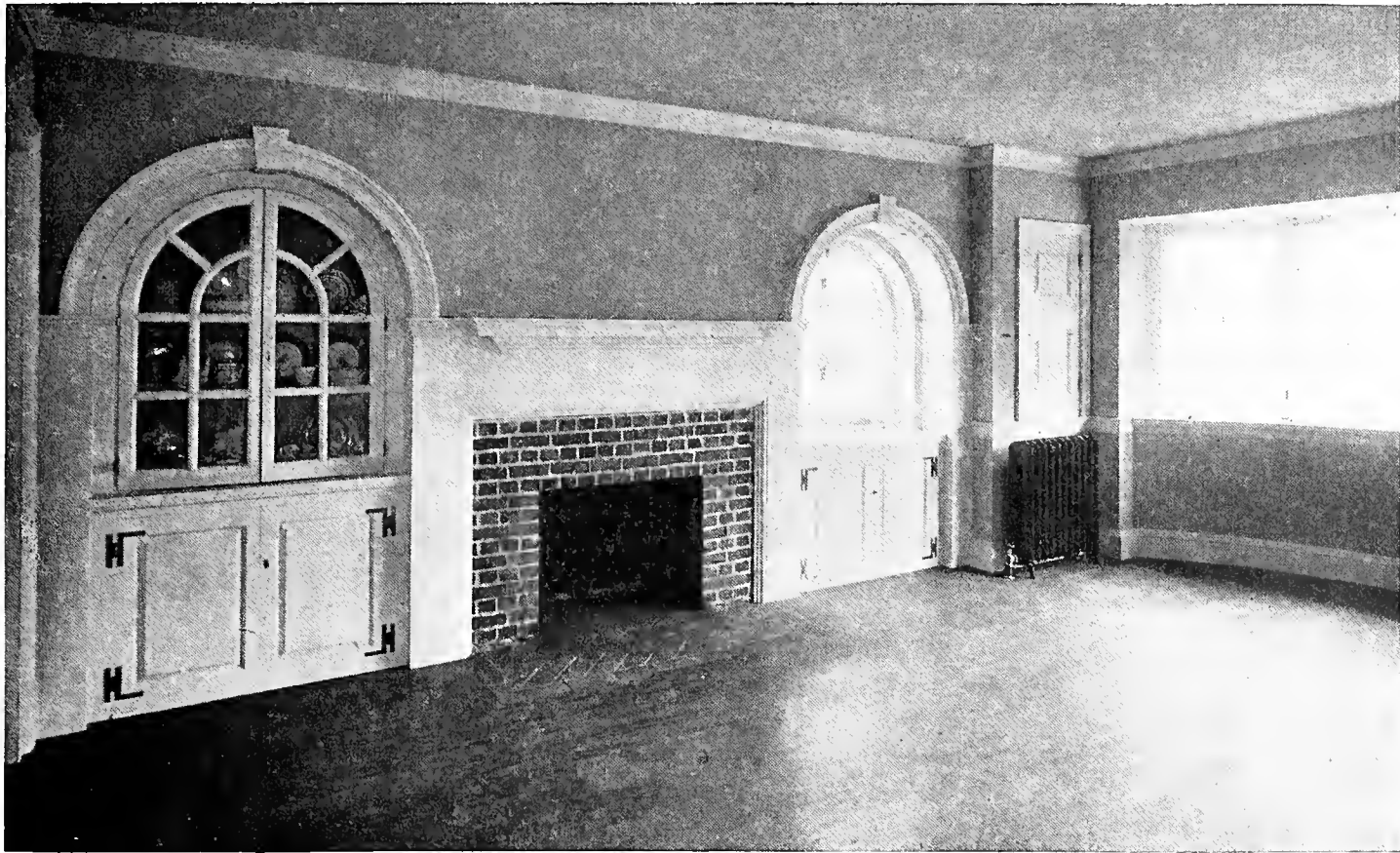
PLANS OF A HOUSE AT GERMANTOWN, PHILADELPHIA
DESIGNED BY ALFRED COOKMAN CASS, ARCHITECT



FROM A NEIGHBOR'S ROOF



THE LIVING-ROOM



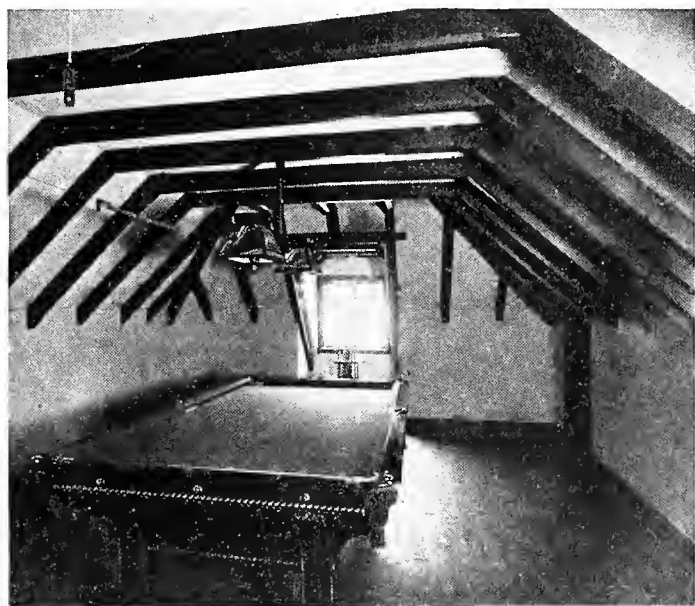
THE DINING-ROOM

have been left in their natural color. Inside the house the same simple detail and quiet color are noticeable. Each room, instead of being sharply contrasted with its neighbor, has its walls of a uniform pale yellow sand-finished plaster. The wood trimming is nearly white, while the dark brown Georgia pine floors are echoed in the ceiling by the

still darker oak joists. Simplicity in the aspect of the whole house has been coupled with integrity of construction. Much of the joinery has been mortised and pinned together in the old-fashioned way, and the meaningless multiplication of mouldings, often but a habit of the draughting-table, has been frankly eschewed.



THE HALL



THE BILLIARD-ROOM

IN "American Gardens"¹ the art of formal gardening as practiced in America obtains, for the first time, an adequate pictorial expression. The collection of photographs which the book presents is representative of all that is best, especially among the more recent works. Although a number of gardens of the eighteenth century have been included, one feels that there must be many others fully as interesting that have escaped the attention of the editors, but of new gardens treated in a more less architectural way the book offers an endless variety.

Granting then that we have before us a representative collection of American gardens, it may be worth our while to enquire how it stands with the art of garden design among us nowadays. Certain it is that the renaissance of the formal garden is in full swing, "no home happy and no back yard complete without its pergola." But have we not something too much of *pergole* and *hermae* and *exedrae*? Have we not in place of developing the modest formal garden of our ancestors, a garden that spoke less of its European origin than of its American environment, have we not rather created the garden of the architect's sketch-book and the amateur's photograph, a garden at its best pleasantly reminiscent of its foreign sources and at its worst boisterously assertive of them? Have we assimilated what we have so hastily swallowed? Is there as yet any distinctly American style in gardens? The answer is not far to seek. We have no more a style of our own in gardens than we have in architecture. And this is all the more remarkable since nature has a way of forcing individuality upon the gardens of each of the nations. When Charles VIII carried back to France the inspiration of Italian art, that of the garden was not wanting, but from the time of Charles VIII to that of Louis XVI the art of gardening became more and more truly an expression of French life and French environment and less and less a reminiscence of its Italian origin. The English garden is under heavy obligations to its Continental neighbors, yet through the course of years it has so blended foreign

influences with what is native to it that it is, as Sedding says, "the precise thing which experience has proved to be most in accord with the character and climate of the country, and the genius of the race." Now it is just because one earnestly wishes to see in our own gardens such an accord with the character and climate of the country, and with the genius of the race that an examination of "American Gardens" leaves with us a note of dissatisfaction. Our art is not yet fine enough to enable us to speak quite in our own words, we must be dragging in here a scrap of French, there a whole sentence of Italian.

But to the book itself. It consists of many good photographs, well reproduced. They are followed by an index of singular value containing sketch-plans of nearly all of the more interesting gardens illustrated in the book. These plans make no pretence at accuracy of detail, yet they faithfully convey all the more important features. Preceding the illustrations there is an essay on gardening partly historical, chiefly critical, by Guy Lowell. It contains much sound wisdom, particularly in its insistence upon the necessity of so skilfully adapting such details as we may borrow from other countries as to make them seem at home in our own. With but few of Mr. Lowell's dicta are we prepared to take issue, yet it is hard to remain silent on hearing him say, "There can be no doubt that, despite the summer charms of the formal garden, the natural style appears better in our climate in winter, and that therefore a formal garden will give its greatest satisfaction only when it is built in connection with a house that is to be principally used in summer." Our own experience has been sharply at variance with this. There comes to mind at once a little formal garden that in summer is scarcely gayer, scarcely more overflowing with flowers than some of its informal neighbors. But in winter, when their empty beds seem so formless and uninteresting, its trim parterre firmly outlined in box, its well-kept walks shut in between walls of somber bronze green foliage, contrasting with the snowy covering of the ground, are a perfect assurance that the natural style does not, as Mr. Lowell would have us believe, appear the better in our climate in winter.

¹ American Gardens, edited by Guy Lowell. 21 pp., 112 plates, 12 pp. index. Boston, Bates and Guild Company. 1902. Price, \$7.50.



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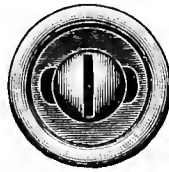
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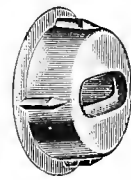
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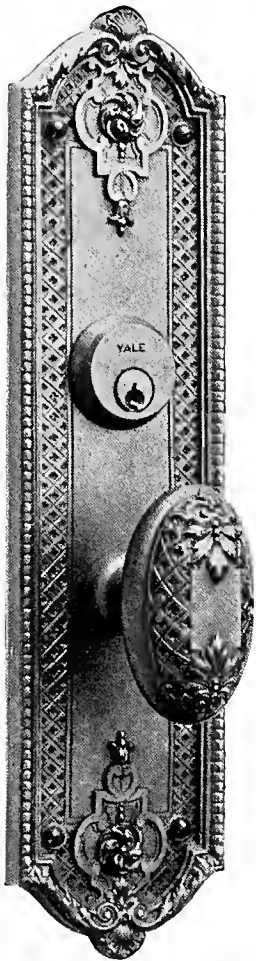
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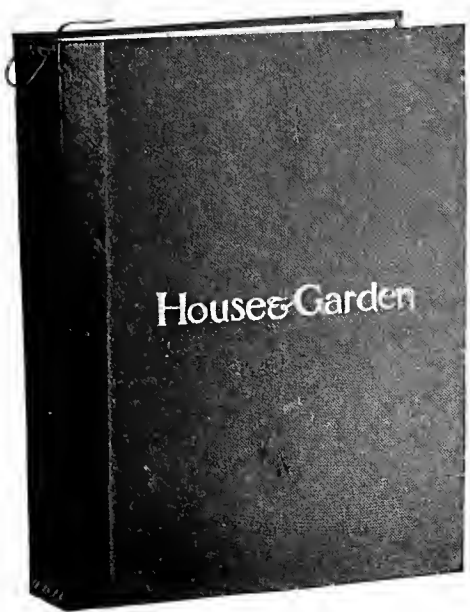
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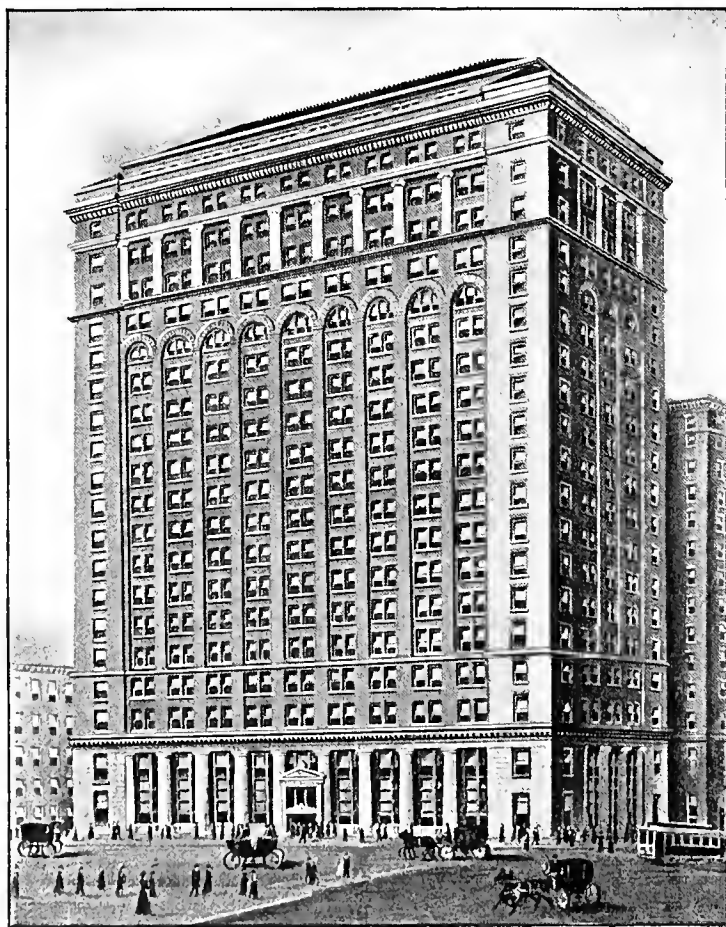
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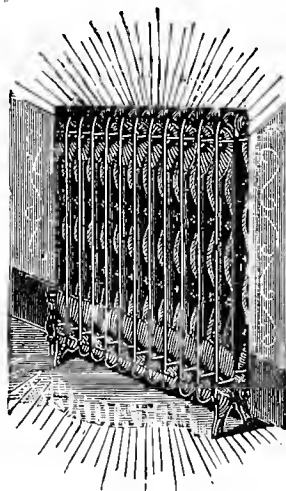


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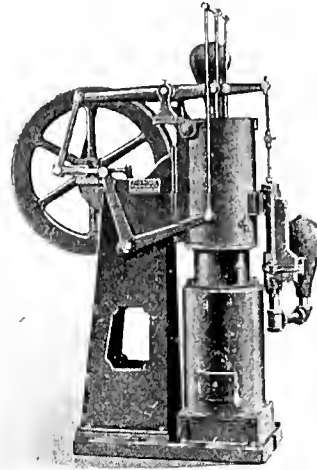
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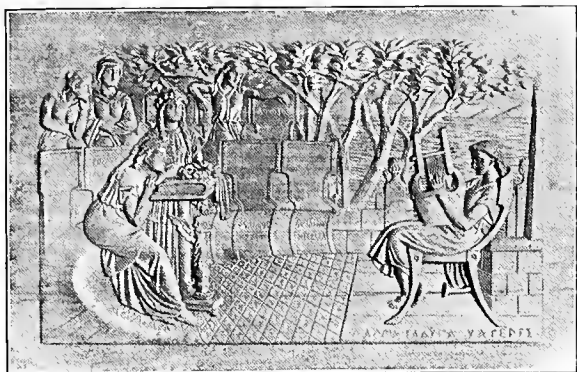
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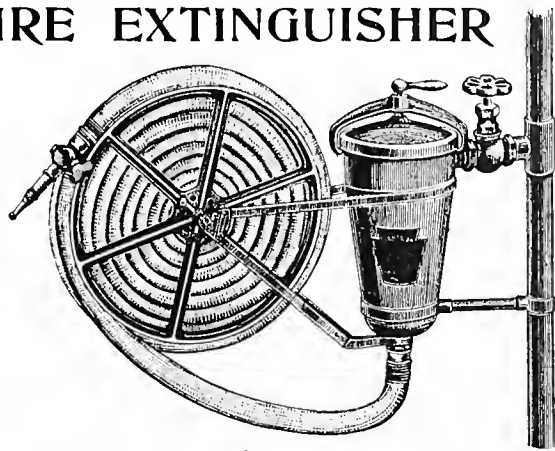
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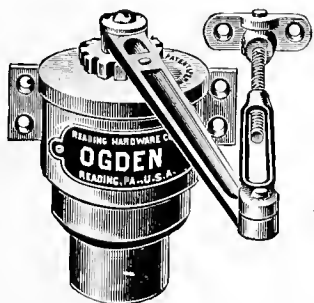
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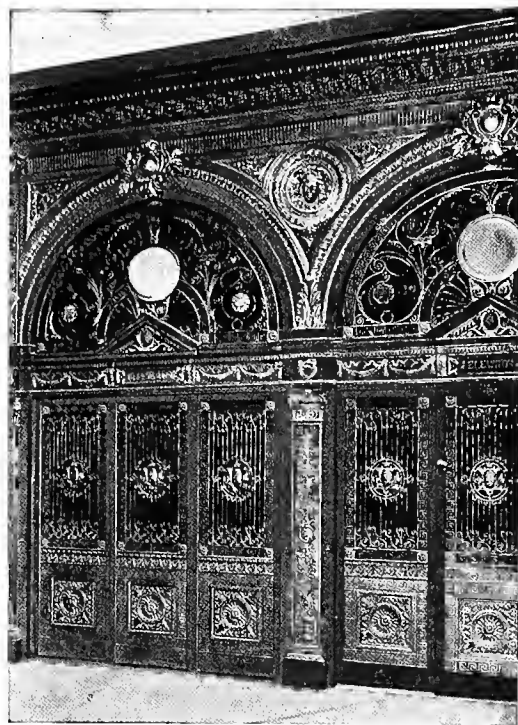
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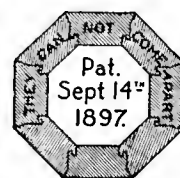
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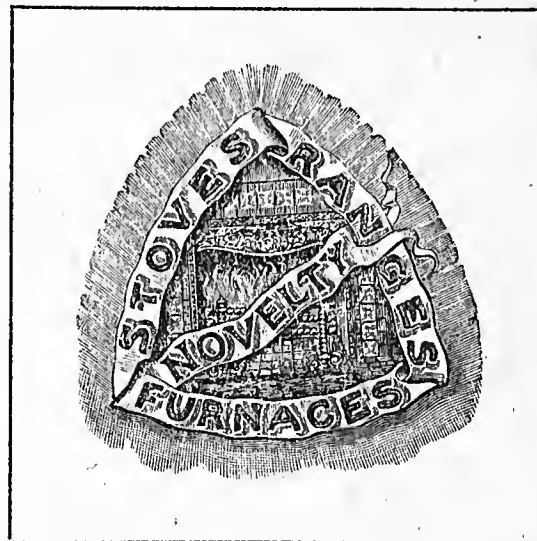
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